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THE

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ORIGINAL PAPERS.

Address of the President,

A. A. LYON, M. D.

Before the Louisiana State Medical Society, at Shreveport, La., April 4th, 1883.

Gentlemen of the Louisiana State Medical Society:

Honorable members of an honorable profession, in convention here assembled to further the noble ends of medical science, I salute you. As your presiding officer, through favor, it is as well my pleasure as my duty. I will ask, however, that you bear in mind that physic is not the cradle of eloquence. Her disciples are professional thinkers and workers, rather than professional speakers. The present case does not afford an exception. Nevertheless, the purposes of our coming together require talk as well as thought and action, and by provision of organic law, it devolves upon me at this time, to address you, affecting the interests of this Society.

I beg you, gentlemen, to believe that I approach this undertaking painfully, conscious of my inability to acquit myself in such manner as the duty demands and as would be most pleasing to you and satisfactory to myself; nevertheless, as best I can, I will, and in the effort crave your generous indulgence. My remarks shall be plain and practical and brief, I promise, and with honest endeavor to advance the well being of this Society, the which, I pray you to believe, I have near at heart.

But coming straight to our subject, I will ask that you consider with me for a few minutes the question of Medical Organization—its objects, aims and advantages, and our duty, the premises considered.

The utility of organization for the accomplishment of work requiring the co-operation of different individuals, is so well established as to require little proof at our hands. "In union there is strength,"—an axiomatic proposition, and Solomon says, "a threefold cord is not quickly broken." Organized union is everywhere requisite for the greatest efficiency and the attainment of the greatest results. The ruler of a country, for simple illustration, who would defend his borders against invading power, or himself enter the territory of the enemy, would certainly not marshal his hosts in heterogeneous confusion, a mob of misdirected energies, without aims or a system, or definite plan of action. It matters not, in such case, what numbers, inherent strength, courage or enthusiasm his followers might possess, they would meet with certain defeat when hurled against the serried ranks of the organized, thoroughly equipped and disciplined army of his antagonist. In recognition and adoption, therefore, of this principle of universal application, organizations everywhere in the civil economy are found to exist, designed to advance and make aggressive the particular interest they represent, and to protect those interests against opposing influences of every nature and wherever found. Organizations, central and dependent, we need but look to behold in almost every department of business of the present day, alike in mercantile circles, the mechanic arts, and the liberal professions.

Our Boards of Trade represent and control in the busy marts, the interests of our great staples, through a system of exchanges. In manufactories and the useful arts we have associations and unions. Even the honest farmer, in fact the most isolated as well as peaceful member of society has felt constrained, in this latter day, to intrench his interests behind the agricultural bulwarks of the doughty Grange. In the law we find associations, local, State and national, for the systematic regulation of that profession. In the

theological world, for the government of the churches, and the furthering of man's religious interests, we find that assemblies, synods, councils, conferences, or conventions, obtain in every denomination; while in concert of inspiration and effort the Pan councils and alliances of recent years are spanning the oceans and continents, and reaching with heavenly benedictions the very islands of the sea. Indeed, beholding thus these agencies at work in every department of human thought and action, may we not well conclude the age in which we live pre-eminently distinguished as the age of co-operative unions—unions the necessity for which increases with increasing population, extends with extending territory, and advances with advancing civilization—illustrations all, it would seem, of a grand truth, to-wit: the progressive unification of the family of man into a common brotherhood.

And now, gentlemen, to approach that of nearest interest, will any forbid the deduction, that not less in the business of Medicine than in any other business is combination and co-operative effort, beneficial, justifiable and wise?

Let us then endeavor, now, to demonstrate the advantages of Medical Societies, and to point out the benefits that flow therefrom, not alone to the profession, but as well to the public which the profession serves. In general summary, we claim that by means of such organizations, medical knowledge can be thoroughly disseminated and usefully applied; fraternal feeling more effectually promoted; harmony of action ensured; and the dignity and unity of the profession maintained and its character exalted.

It is doubtless true that most of us have access to the standard medical literature of the day, yet, there are advantages in personal interchange of thought evolved by discussions that arise in our Societies, that are not reached by merely reading the pages of a journal in the seclusion of an office. By necessary law, there is something in this friction of mind against mind conditional to enlargement and growth. It engenders a high toned emulation; it practically induces investigation, and compels development. Moreover, the frequent coming together of bodies of intelligent medical men,

for the purpose of discussing the great truths of their profession, and for the interchange of opinions and clinical experiences, cannot but be personally advantageous to each participant, and through him to every suffering brother seeking his aid and counsel; for the true physician, be it remembered, does not recognize the quackish principle of keeping to self that he may enrich self, but stands ever ready, with open heart and extended hand, to proffer the benefits of his knowledge to humanity's suffering ones, wherever found.

In the next place, it is not to be overlooked that these Socio-Medical conventions, especially as illustrated in our similar societies, tend to strengthen the profession and add to its efficiency, in that it induces intimate personal relationships, which not infrequently lead to valuable friendships, where previously existed but a formal professional recognition. Certain it is, that the tendency of this Association is to break down that hyper-sensitiveness and petty jealousy which sometimes arises in the professional intercourse of physicians, which tends, and with justice too, to lessen public respect and esteem, and to diminish, correspondingly, our power and usefulness. We hesitate not to deny the frivolous charge so often made, that "doctors" are peculiarly given to "quarrelling amongst themselves," touching matters professional, yet, the mortifying fact does occasionally confront us, and must be admitted.

There are few spectacles more humiliating or dishonoring to our noble calling than that of dissension and acrimonious discussion around the bedside of a sick and suffering man, amongst those whose work is one of love and who should be ministers of mercy, bearing in their hands the healing balm and upon their lips the comfort of gentle soothing words. The unhappy bickerings growing out of the illness and death of the late President of the United States among some of those connected with his case, and which caused the blush of shame to mantle the cheek of every true physician, are still fresh in the minds of the people. Scarce had the details of these occurrences ceased to be the theme of ridicule and mortifying criticism in the columns of our public journals, when, lo!

across the ocean, from the great European republic, comes the painful story of a fierce wrangle among our French compeers over the body of the dead statesman Gambetta. These untoward events, so recently transpiring in high places in the face of a censorious public, and in the glare of noonday, have done not a little to dishonor the proud name of an exalted profession and to trail its white standard in the dust. But, if through the accident of publicity and exalted accompaniments in the cases just noted, a greater amount of injury is inflicted on the profession at large, it is none the less discreditable among those who move in less conspicuous spheres. But pardon this semi-digression, nor construe it aught except in general application. But may we not profit by the lesson thus taught, and gather strength by a more careful study of, and a higher regard for, our Code of Ethics, that sublime system of medical morals, so to speak, that has been fitly characterized as second only to the Holy Bible in the purity of its teachings and the fulness of its principles of love? Let us strive to be guided by the spirit it inculcates, that we may never strike upon the rock of inharmonious controversy. It may be well, parenthetically, to add, that to medical organization we are indebted for this grand instrument which, let us sincerely trust, the iconoclastic hand of an overleaping modern progressiveness may never rudely touch.

There is an evil, and one too essential in its nature, that, like a corroding ulcer or festering sore, attaches itself to our professional body, working grievous damage, which through medical organization we may hope, in some measure at least, to eradicate; and though the subject be worn, I shall not apologize for introducing it here. It surely presents occasion for line upon line, and precept upon precept, here a little and there a little. I refer to the annual delivery of hundreds of uneducated, often illiterate, youths, by the cheap medical colleges of the day, clothed with authority to take into their hands the dearest interests of men, even their health and their lives. The popular idea that of the learned professions, medicine requires less of talent and of education than either of the others, is a fallacy. The difficulties of medical science

can be mastered with no more ease than the abstractions of law or the tenets of theology. Is it not ordinarily absurd to presume that the plough boy, with no education beyond the field school, or the stripling on the street corner, whose studies gave out with the birch and the rule, is prepared to begin investigation in a science as broad and as deep as that of medicine; a science that in its expansiveness embraces the whole of nature, that reaches up to the airy clouds and snatches therefrom the electric flash; that dives down into the bowels of the earth, and from her hidden depths extracts her mineral substances; that stretches itself into the uttermost parts of the globe and gathers into the lap of her pharmacopœia the healing growths of every clime; in short, that lays under contribution to her store of remedies, earth and sea and air? It is probable that he can yet comprehend the different phenomena of physiology and the mysterious affinities of chemistry. Is he prepared to search out the intricacies of anatomy, and to understand its surgical and pathological relations? Why, the very nomenclature of medicine, composed as it is of the dead languages, must be to him an unmeaning sound.

Unhappily, too, medicine is in great measure occult. Many of its phenomena are hidden from view, so that even the most learned and cultivated in other walks cannot always judge of the physician's capacity and must needs receive in faith what he cannot understand, while the pulpit and the bar afford no such opportunities for ignorant pretenders. There he must needs be subject to the crucial test of an understanding public scrutiny; he is of necessity weighed in the balances of popular judgment, and if found wanting receives his proper place. Is it not therefore manifest that, for the protection of a public in measure unable to protect itself, we should see see to it that none except those who are duly qualified should be invested with the weighty responsibilities that attach to the practice of medicine? For these reasons, then, it appears to us no greater argument could be adduced in favor of our proposition. Education, not necessarily collegiate, but education equal at least to that demanded for the other professions, should be deemed essential in him who aspires to the practice

of medicine. This ignorance, so often met with among medical men, mars the dignity of the profession, corrupts its purity, induces skepticism as to its certainty, and engenders and fosters quackery in all of its shapes and multiform abominations.

But it is encouraging to note that an interest has at length been excited, not only in the profession itself, but in the minds of the public also, concerning these questions. The manifest unfitness of many medical institutions in this country for the proper education of physicians—yea, the actual criminality of some of them in the sale and issue of fraudulent diplomas, has begotten a feeling of general distrust, stirred in some quarters a hopeful indignation, and given rise to a sentiment which is growing, that the licensing power should no longer be reposed, as at present, in the schools and colleges alone, but should be committed to a supervising confirmatory power more exacting in its requirements.

Some years ago, and before this evil had assumed the colossal proportions that now confront us, Dr. J. M. Taylor, the then President of the Mississippi State Medical Association, in his annual address before that body, uses substantially this language: "May we not hope that the time is not far distant when, through the influence of medical organization, our profession will receive from the civil government that recognition its importance demands, when its voice, as expressed through our associations, will be heard, and its recommendations adopted as the basis of legislative enactment on all medical subjects; when our law making bodies will no longer confound medicine with the rank fungi which has sprung up around it, when the licensing power shall be transferred from the colleges to the state associations? * * Let the colleges and hospitals teach, but let the physicians of each state decide who shall practice medicine in their respective territories. * * This," he continues, "is rather a radical proposition, but one which I think ought to be, and I believe, will be adopted in time, as the legitimate result of a perfected system of organization.

After long and persistent effort, this point has at length been attained in the State of Alabama, under the enactment of ordinances originated and framed by the State Association. To say no physician, it matters not what may be his pretensions, or the character of his diplomas or certificates, is permitted to practice within the bounds of that State until he shall have passed an approved examination before a board of censors, ex-officio a board of examination, created by, and responsible to the State Medical Association, from whom, under the state law, they derive this authority. Thus we behold in this association a virtual medical legislature, regulating in all of its departments the practice of medicine throughout the state, and which, in the exercise of its functions, is successfully eliminating from the ranks of its medical men the disastrous ignorance and incompetency to which I have just made allusion.

Now the inference is plain that these ends can be reached only by systematic legislation, and it must be equally clear, that the demand for this legislation, to give it the greatest weight, should come, not from individuals or even local societies, which are necessarily circumscribed in their influence, but from the profession as a whole, represented by its State Society. In continuance of this line of thought, I will, with your permission, quote with slight paraphrase from the report of the committee on State Medicine, Alabama Transactions, 1875, which indicates the policy of that Association while in pursuit of the object it has since so successfully accomplished and which *mutatis mutandis* is as applicable to us of Louisiana. "As the organic representatives of the medical profession we conceive that it is the province of this Association to recommend to the General Assembly the enactment of such laws as may be required for the practice of [medicine in this state. It seems to us that no laws in any way affecting the interests of the medical profession should be allowed to go before the Legislature without having first received the endorsement of this body. Bills of the character here referred to are not infrequently pressed upon the consideration of the General Assembly, and this too upon the suggestion of medical men.

But a few medical men, without organization or concert of action, ought not to presume to influence legislation which is to affect the whole profession * * *. The report goes on to deprecate the policy of seeking legislation for purely selfish ends, and concludes, "We go still further and take still higher ground. We ought to make it an inflexible rule never to seek the enactment of laws that are for our own exclusive benefit. Let us ask nothing of the Legislature that is not quite as much for the benefit of the general public as for the profession of medicine."

We will add that these recommendations have been accepted by the State Association of Alabama, and now constitute a standing rule, never to be departed from. Shall not we then, of Louisiana, in a spirit of generous rivalry, strive to emulate our Southern sister, and to render our Society the same power for good in this state as is claimed for the State Association of Alabama.

But I must hasten my conclusion. As a true physician, in professional aspiration and standard, I trust, if no more, I confess for myself a profound interest and concern in the topics touched upon in the course of these cursory remarks. I say touched upon, for the time to which I have properly limited myself forbids that it be otherwise. In the imperfect presentation here made, however, it has been my honest endeavor faithfully to discharge the constitutional obligation imposed, "to promote the objects of this Society."

And now, brethren, before I close, as we earnestly turn our eyes in review, as we contemplate in their fulness the words so feebly spoken, what say you? Shall we continue to stand all the day idle or half idle, contentedly failing to apply to the uttermost every means that the Orderer of our ways has placed in our power for the advancement of the great work committed to our hands? Surely, no! Let it no longer be said of us, in the proud old State of Louisiana, that we lack aught in honor to the noble mother. Let it not be said of us that she shall hold with our consent any second place upon the world's great stage in this era of unparalleled advancement, an era when all nature is responding to man as

never before; yea, an era when the waves of the sea are made but as dust under the feet of traffic; when the storm in his fury, is out-run by protective science; when steam is yoked like the ox for man's service; when the very lightnings of heaven are bridled for his sportive use, and distance itself and the voiceless air are made articulate at his masterly command. Let us then, mindful inheritors of a noble work, even the care of this wonderful body, the temple of the glorious mind and of the immortal spirit, together reflect, together resolve, together answer: Has Medicine, the goddess of our election, no unaccomplished work for us to perform? Has she no further truths to discern, no additional benificent influences to extend, no blessings yet undistributed to suffering humanity; no fame to conserve or glory to exact, that we unmindful of our trust, should contentedly lie in the dust beneath the wheels of the world's present progress? Hardly so, in this, our day of stone upon stone and pillar upon pillar, of thought upon thought, and light upon light, and triumph upon triumph!

These reflections for guidance, and for inspiration in some humble measure it may be, loyal brethren of a loved profession I leave with you.

Oration of Rev. W. T. Dickinson Dalzell before the Louisiana State Medical Society, at Shreveport, Louisiana, April 4th, 1883.

Rev. W. T. Dickinson Dalzell, of Shreveport, spoke as follows:

Had I acted on the first, and perhaps the wisest impulse, when invited to address you to-day, I should have declined to do so. I did suggest my disinclination to assume this duty, and I felt, if I did not also suggest, my inability to discharge it as it ought to be discharged.

The grounds of this impulse were my exalted estimate of the medical profession, my high opinion of its claims, my knowledge, limited it might be, but still sufficient to enable

me to judge of the acquirements of its members generally; my general information on the subject of its research, the wonderful progress made by the science of medicine in late years, and the exalted status of many who practice it as an art as orginal thinkers, men famous as authorities in the various branches of modern science.

Any man called to deliver an address before an association of members of this profession, assumes a task that must tax his intellectual energies to the utmost of their ability. But I have accepted the invitation to speak here to-day, the moral temerity which has led me to do so, having as its source three distinct feelings. So high an estimate of the honor conferred in the invitation (that I was reluctant to decline it), an earnest desire to do all in my power to show respect for, and assist in the work of this association, and a decided conviction that you will require only such hearty service on this occasion as it is in my power to render. Confident on this latter point, aware that I am not called upon to express opinions that may provoke to criticism, and assured that I shall simply state facts, and draw such conclusions from them as must awaken a response in the head and heart of every one of my hearers, I proceed to test the success or failure of my attempt, by your approval or condemnation.

The objects of a meeting like this, as I understand them, are the advance of the common pursuits and common interests, and the calling forth of the kindly feelings of the members of a common profession.

You, gentlemen of the association, will discuss the latest developments in the theory and practice of the science of medicine, the facts and opinions, the premises and conclusions, the reasonings and deductions, which are continually arising in the wide field of medical and surgical exploration, the unmistakable signs of the continual advance of a science whose watchword for the past century has been *progress*—progress in matter of the first importance to this world of suffering men, women and children; progress, whose every step has been marked by the one motive, and that, thank God, a successful motive, of alleviating at least, and in many instances, of pre-

venting that suffering. You will thus give strength and confidence to each other in the practice of an art which touches so nearly and so tenderly, all the relations of human society.

It will be my privilege, in such a retrospect as I propose, and such reflections as that retrospect will suggest, on the relations of medicine to society at large, and the obligation, immense to the science under which the world rests, to make a small contribution to the latter of the two objects named.

I have said that the watchword of medical science for the past century has been progress. This assertion may be amply sustained by a reference to its history, and by comparing what has been done in and by the profession during that period, with what it had not done up to well nigh the close of the last century.

When, about sixty years ago, Sidney Smith flung out his celebrated sneer on America in the *Edinburg Review*, taunting her citizens with their absence from among them of all literary ability and literary work, asking, "in the four quarters of the globe who reads an American book?" he specified among other things, medical and surgical literature. "What," he asked, "does the world yet owe to American physicians and surgeons?" The witty canon of St. Paul was perhaps right in the abstract. There was no American literature, and notably, no American medical or surgical literature; no recognized authorities in the profession, looked up to as guides in opinion or practice. But, a little reflection would have helped the author of this taunt to recollect that he was demanding from a nation in its infancy the evidences of a virile manhood which the old countries of Europe, and, notably, his own among them, had not exhibited in this particular department. For, while England and the nations of continental Europe, had their literature, historical, philosophical, theological, dramatic, poetical, metaphysical, yet, up to the close of the last century, they had no medical literature worthy of the name. A *thousand years* of progressive civilization found *England*, in this respect, in a condition very similar to that of America, when her novel and unique venture at a national civilization

was yet in the tottering steps of its first half century. With the exception of a few names of men distinguished for substantial conquests within special domains of medicine, the profession, at the close of the eighteenth and beginning of the nineteenth centuries, was ruled by *Empiricism.* To you, gentlemen of the Association, this fact in the history of medicine is well known; but I mention it for my non-professional hearers, that they may understand how great the difference between medicine then and medicine now; and that they may appreciate the present intellectual standpoint, the true scientific basis of to-day, of the different branches and specialties of the profession.

Suppose Sidney Smith to be living and writing to-day, and what would his incisive intellect and ready pen have to say on American literature? When he thought of Prescott, and Motley, and Bancroft; of Halleck, and Bryant, and Poe, and Lowell, and Whittier, and Longfellow; of Cooper and Hawthorne, and *primus inter pares*, Washington Irving, the rival of his own Addison, and Agassiz, and Marsh, and Draper, and a host of others, would he not be constrained to acknowledge that the nation of a century was treading closely upon the heels of her mother, whose 1000 years find her still in a vigorous maternity? And the same thing is to be said of American medical and surgical literature. The question to day would be, does not the world owe much to American physicians and surgeons? In the language of Dr. Edward H. Clarke, "There was a great deal of truth in his (S. S.'s) statement at that time." Naturally enough, his words rubbed the backs of all loyal Americans the wrong way, and everybody cried out accordingly. At the present time we can read his biting language with equanimity. If the first half century of our national existence did not yield much to science and art, it produced all that could be reasonably have been expected of it; and the last half has produced books, manufactures, discoveries in the arts and sciences of every kind, that have gone over the four quarters of the globe. We can now fairly ask, who does not read an American book? and can point with honest pride to the services which American physicians and surgeons have rendered to the world.

It does not fall within the scope of this address to give a detailed list of American medical and surgical writers. I could fill a page of this manuscript with the names of men eminent as authorities, who grace the profession, and it would require many pages to catalogue the books produced by members of the profession in America, that stand by the side of European books, both as text books, and as most skilful expositions of the different specialties of the science of medicine. But I may be pardoned for saying that Europe produces few names in the profession as authorities, whose works are more generally recognized as such, than those of some American writers in the different departments of medical and surgical science, which in the matter of medical schools and medical journals, America has some, among a host that she could well do without, that may safely challenge comparison with those of Europe.

Now, in this change from *Empiricism* to exact science, in this accumulation of able authorities, in this marked progress, which is the present characteristic of the medical profession, it has simply been falling into line with the general scientific progress of this remarkable age. Science, generally, has advanced in the present century with wonderful strides, and its progress is still increasing with altogether unexampled rapidity. A profession dependent on science must, therefore, vary with that on which it depends. If it did not advance with the advance of science that fact would prove it to be in error. But, advancing as it has done with all the other departments of science, it proves itself to be ever on the alert in the search of truth, and thus, I hold, commends itself to the commendation and gratitude of mankind.

But I may be asked, now does the science of medicine exhibit this scientific progress? That is, what has it to show besides books, as the evidence of its utility to the world? A few sentences will answer this reasonable question.

Humanity, Ladies and Gentlemen, has its constant properties, and its variable accidents. It has its constant needs of food, warmth, clothing, shelter; its constant liabilities to sickness and disease; its constant variations of relative wealth

and relative poverty; its constant yearning after something better, and exposure to something worse. Then humanity has its variable accidents—climate, fashion, ease and luxury, labor and degradation—and, with those, other accidents, not like death, unavoidable and irremediable; but such as, however formidable and perilous, may, to a certain extent, be avoided or remedied. And when we reflect upon this, we see at once to what a vast range of subjects medicine is linked. Now, medicine shows to the world the many points of science which touch every one of these subjects more or less closely, and how it applies the principles of science in dealing with them; and having shown this, it then stands ready to prove to human society that its scientific investigations, its clear scientific deductions, and all its efforts in applying scientific principles, are intimately bound up with the sufferings and the sorrows, the ease and the joys, physical and mental, of mankind.

It is this necessary law of connection with man as a whole—with the individual, with the family, with the community—which makes the difficulty, the responsibility, and the glory of the medical profession; and it is this which, pre-eminently now, in this scientific age, this period of the history of human knowledge, places this profession in a focus of observation to which the eyes of thinking men are directed, and leads them to ask, what is the medical profession doing to help mankind, and to meet the requirements of the peculiar civilization of this nineteenth century?

To this question also the profession is, I think, ready to give a satisfactory answer; and that answer carries with it a suggestion of the ever increasing obligation under which the world lies to medicine. What the answer would be, if formulated, we may form an approximate idea, by recollecting, or, if we have not hitherto known by being informed, that the profession is now in possession of modern inventions and modern means of research, which it daily applies in ways of which a half century ago there was no conception, to the discovery and explanation of the phenomena of disease. Sounds within the body, showing the condition of parts which can be heard but cannot be seen, and now so clearly understood that in a

great majority of cases the skillful physician is able at once to tell what it is that produces an abnormal phenomenon ; optical instruments, that lay open many organs of the body before inscrutable ; physical contrivances, that reveal the secrets of the eye ; the sense of touch supplemented by skillful apparatus to register every movement of the heart and every beat of the pulse ; and more than this, the microscope and the test tube, bringing the profession to a knowledge of parasites that infest the human body, answering in a moment questions once unanswerable, though on them hung issues of life and death, and enabling us to modify sanitary regulations in a manner the most remarkable. These are among the evidences of the profession's good work, some of the signs of its ready adoption of all the available scientific methods whereby it can and does help men, and oftentimes saves them from dire calamities.

But this is only a part of the answer to these questions which medical science is ready to give.

Gentlemen ! when I reflect upon the possibilities which the present scientific investigations of medicine, aided by the cognate science of chemistry is prosecuting, I know not where to place a limit to my hope and expectation of the benefits it promises to confer on mankind. Where and in what direction shall we limit the possibilities of Pasteur's investigations of the germs of disease, their procreative energy or their preventive efficacy ? Is there anything unreasonable in the inference that diseases now among the most fatal may be rendered as inocuous as Jenner's discovery has rendered small-pox ; and that diseases whose origin is still obscure, may yet be found to be as manageable and subject to the same law of prevention as that dire malady ? And those sanitary laws the necessity and and efficiency of which the profession is, at this very day, so strenuously enforcing, what may we not hope from them, in reference to the mitigation of sickness, suffering, death, in densely populated cities, and especially among those at present, wretched victims of our peculiar civilization, the hardest worked, the poorest, and the most vicious classes of the community ? In these two directions, I find the promise of some of the greatest good the medical profession is capable

of—the modification of some diseases, the actual prevention of others, by the adoption of the highest scientific methods.

Yes, the world owes much to the science of medicine for what it has done; it will yet owe it more for what it is now laboring to accomplish and what, we may be fully assured, it will yet accomplish. But it is in the practice of this science as an art, that society naturally finds its own chief burden of obligation, in this practice that we observe the results of those scientific inventions and appliances to which I have alluded; and in this chiefly, that there is found the strength and glory of the medical profession.

The medical practitioner occupies a position unique among men. Neither divinity nor law can be said to have the hold upon public confidence that medicine has, nor to be so entirely the object of public dependence. Men may, and as we know, they often do, dispute the dogmas of the Divine, and decline to govern their lives by his teaching. Not all men go to law, and many among those who resort to that ultimate appeal, do so with serious misgiving as to the result.

But all men, at some time or other, need the doctor, and they call for him with a confidence in the soundness of the science which he represents, and in his skill of practicing it, such as no other circumstances of life can call forth toward any other object, and they accept his judgment of their case, and submit to his treatment of it, with a readiness unequaled in anything else. Nor is there any other profession which, when faithfully practiced, taxes so severely the physical endurance, the intellectual vigor and accumen, and the nerve of him who practices it. Nor is there another that places the practitioner in such relations with his client—relations of the utmost confidence, and of the last degree of trust, in his honor, his sympathy, his tenderness and his ability and will to render the necessary aid. Not the husband or the wife of one's own bosom, nor parent nor child; not friend nor brother; aye not lawyer nor priest, can stand in more, and oftentimes not in such intimate relations to us, as our physician. Matters of the mind as well as those of the body; matters that affect the honor and peace as well as those that affect the health of individuals and fami-

lies, are laid bare to our physician. And to whom do we look, to whom do we appeal, in times of great bodily emergency, whether arising from accident or from the usual inroads of disease? And when one we love lies panting in the throes of a deadly malady; or when we ourselves are stricken down and laid low, and life and death are almost equal in the balance, who do we feel can alone, under the great and supreme Giver of life, help us, assisting nature to bridge the chasm that yawns at our very feet, and take us triumphantly to the point of safety beyond? Is it not our physician to whom we turn and in whom we trust in times like these?

The physician's skill is not miraculous. He cannot give life when He who gave it sees fit to take it back. But how inexpressible the support and comfort, under such bereavement, when we can feel that all that the skillful physician could do has been done, and that while called to mourn over a sore bereavement, we can be assured that it came through a divine will and purpose, and not from the want of skillful human efforts to avert it.

If all this teaches the physician the measure of his responsibility to society, surely, Ladies and Gentlemen, it also teaches society the measure of its obligation to the physician.

Gentlemen of the association, I have said that the physician's skill is not miraculous. He cannot give life, nor can he go beyond a certain limit in averting death. And this must be the solace of the good physician, when, in spite of his utmost skill and care, he sees the object of his efforts sink into one final sleep. But we do not adopt the *kismet* of the Arab and the Turk; we are not fatalists; and we do believe, as the result of reason and experience, that life can be prolonged, that disease can be prevented, and that the grim monster can be met in conflict by men and pushed back, and made to retire, when he stretches forth his skeleton hand to take us away hence. And we believe that this results from the skillful, scientific application of the science of medicine—involving, as it does, laws of health as well as laws of cure.

Therefore, all reading and reflecting men know how much medicine can do and does. And such men readily ascribe to

the medical profession the status which to-day it justly claims in the world; while the great mass of uninformed and unreflecting men, having no knowledge of the philosophy of the science or its methods, are equally impressed by the astounding magnitude of the results which they so often behold.

All classes will, therefore, readily concur in an acknowledgment of the obligation in which the world stands indebted to medicine.

School-Books on Physiology and Hygiene.

By STANFORD E. CHAILLE, A. M., M. D.,

Prof. Physiology, etc., Medical Department University of Louisiana.

An address by me, on "the importance of introducing the study of hygiene into the public and other schools," was published in the April No. 1882 of the New Orleans MEDICAL AND SURGICAL JOURNAL. Gratifying evidence of its public appreciation was given and, in addition, so many requests were made for advice, respecting the *best* school text books on hygiene, that I was induced to promise to investigate this subject which had never received my special attention. When this promise, which I now attempt to fulfil, was made, I had no idea that the text-books published in the United States were so numerous, and consequently did not realize how troublesome my task would prove to be. The following table amply indicates this, and will also serve as my excuse for having failed to give to every one of these numerous books the careful study and criticism which author and publisher might desire. However, some of these may derive consolation from the certainty that, had I thoroughly criticised their books, the result would not have been satisfactory to them. A very casual examination has been sufficient to show the serious imperfections of some of these books, while few of them are superior to some unfavorable criticism. However, the practical question concerns their *comparative* merits and demerits.

List of Common School Text-Books on Physiology and Hygiene, Published in the United States.

(ARRANGED ALPHABETICALLY BY NAMES OF AUTHORS.)

No.	Author.	Title.	Publisher.	Dates.	No. of Pages.	Size. Length and Bredth, Inches.	Size. Max. No. Words on Page.	Retail Price.	No. Illustrations, Remarks.
1	Prof. R. T. Brown, M. D.	Elements of Physiology and Hygiene	Van Antwerp, Bragg & Co. N. Y.	1872	286	7½x5	320	$ 1 00	"71 Figures"
2	Prof. Jno. Cleland, M. D., F. R. S.	Animal Physiology	Putnam's Sons "	1873	325	7x5	440	1 25	158 "
3	J. L. Comstock	Physiology	Sheldon & Co "					1 12	
4	B. N. Comings, M. D.	Class Book of Physiology	Appleton & Co "	1854, 1881	324	7½x5	380	1 12	71 " & 24 plates
5	Calvin Cutter, M. D.	First Book. Anat., Physol. and Hygiene	Lipincott & Co. Phila.	1872	197	7½x5	330	64	161 "
6	" " "	Analytic Anat., Physiol. and Hygiene	" " "	1849, 1870	395	7½x5	330	1 20	226 "
7	Prof J. C. Dalton, M. D.	Physiology and Hygiene	Harper & Bros. N. Y.	1862, 1882	424	7½x5	300	1	78 "
8	Prof. J. C. Draper, M. D.	Anatomy, Physiology and Hygiene	" " "	1866, 1878	300	9x6	470	2 50	168 "
9	R. J. Dunglison, M. D.	School Physiology	Porter & Coates Phila.	1880	314	7½x5	330	25	117 "
10	J. M. Fothergill, M. D.	Animal Physiology	Putnam's Sons N. Y.	1881	112	7x5	250	1 00	64 "
11	M. Foster, M. D., F. R. S.	Physiology (Science Primer)	Appleton & Co "	1881	132	6x4	330	45	18 "
12	Hitchcock, Sr., D.D., and Hitchcock, Jr., M. D.	Anatomy and Physiology	Ivison, B., T & Co "	1860&r. ed	443	7½x5	360	1 15	373 "
13	Hooker, M. D., and Sewall, M. D.	New Physiology	Sheldon & Co "	1874, 1882	376	7½x5	380	1 20	166 "
14	C. L. Hotze	First Lessons in Physiology	Cent. Publish'g Co. St. Louis	1875	192	7½x5	220	75	37 "
15	J. C. Hutchison, M. D., L. L. D.	Physiology and Hygiene	Clark & Maynard N. Y.	1882	270	7½x5	360	1 08	61 "
16	Huxley, F. R. S., and Youmans, M. D.	Physiology and Hygiene	Appleton & Co "	1873, 1881	485	7½x5	360	1 22	132 "
17	E. Jarvis, M. D.	Elements of Physiology	Barnes & Co "	1865	168	7x5	220	60	27 "
18	" "	Physiology and Health	" " "	1865, 1874	427	7½x5	370	1 20	49 "
19	T. S. Lambert, M. D.	Physiol. Anatomy and Hygiene	Wood & Co "	1866	420	7½x5	360	80	254 " & 30 plates
20	H. Lawson, M. D.	Popular Physiology	Putnam's Sons "	1873	168	7½x5	540	1 00	86 "
21	C. A. Lee, M. D.	Human Physiology	Lippincot & Co. Phila.	1839, 1854	336	7½x5	400	1 00	91 "
22	Loomis	Anat., Physiol. and Hygiene	Sheldon & Co. N. Y.					1 00	
23	J. C. Martindale, M. D.	Anat, Physiol. and Hygiene	Eldredge & Bro. Phila.	1872, 1881	242	7½x5	360	1 00	53 "
24	C. K. Mills, M. D.	First Lessons in Physiol. and Hygiene	" " "	1883	206	7x5	280	60	40 "
25	J. D. Steele, Ph. D.	Fourteen Weeks in Physiology	Barnes & Co. N. Y.	1872	238	7½x5	330	1 00	66 "

This table requires explanations in several particluars. First, as to the recorded *dates of publication.* Although these may be, in some instances, erroneously stated, they are none the less as accurate as the publishers permit. Some of these reprehensibly omit to affix to their books the date of publication, with no conceivable purpose, except to enable them, by means of this deceptive omission, better to dispose of such books when they become out of date. Such omissions I have supplied from the date of the preface, or of the introduction, or of "when entered according to the Act of Congress." Second, as to the *size indicated.* Confident that the ordinary reader now gets very indefinite information of the amount of contents in a book from the technical terms used to indicate its size, I have preferred to indicate this by the length and breadth in inches of the cover and by adding an approximative estimate of the number of words on a *full* page of the type most *commonly* used in the book. However, it deserves notice that the full pages are less numerous in proportion to the number of illustrations by so-called "figures," etc., and that most of these books contain questions, summaries, etc., in type smaller than the one most commonly used. Third, as to the *price.* I have given in the table the "retail price" as stated either in the publisher's advertisement or in the "American Educational Catalogue for 1882." However, this "retail price" is, I believe, the price to the trade and to booksellers, so that the ordinary purchaser would have to pay from ten to twenty-five per cent. more. On the other hand, the wholesale purchaser, for instance a school, would be charged from ten to twenty-five per cent. less than the "retail price" indicated in the table.

To my tabular list of twenty-five books, the good but old book "Combe's Constitution of Man" should perhaps have been added. But I have failed to procure this book as also those of Comstock and of Loomis, both of which are, none the less, recorded in my table. All of the remaining twenty-three books I have examined. Three of these—Lambert's, Lawson's, and Lee's—can be at once disposed of, in as much as whatever merit they may have had, these books as well as those of

Combe, Comstock and Loomis have been so supplanted by more recent works, that the publishers could not probably now supply a school with any of them. There remain then only twenty, of the total twenty-six books mentioned, to be considered.

My conclusions respecting these twenty books have been largely influenced by the following personal views: In regard to what should be the *chief object* of such books I fully concur with the prefaces of Dr. Brown and of Dr. Jarvis. The former says, that "the study of Physiology, in other than medical schools, should have direct reference to the *preservation of health* rather than to the cure of disease;" and Dr. Jarvis says, as to his larger book, that "the great and sole object of this work is to teach the laws of health, the powers of the several organs, the limit of their strength, the way in which they are to be developed and sustained, their proper uses, and the certain and evil consequences that follow their misapplication." Our present civilization has no need more woeful or imperative than to be taught the great lesson,—that, while much human suffering, probably more than follows from any other cause, results from bodily ailments, yet these are mainly due to avoidable abuses of the body; that health and disease, therefore life and death are to a sadly inappreciated extent in the control of each individual and of his community.

The book which neglects this supremely important practical object, in order to make room for other information however valuable and however well imparted, cannot command my highest approval. In education, knowledge the most useful to all should have precedence over the less useful.

The object of the book being thus determined, the next consideration concerns of course its execution. As to this, much latitude must be conceded to the author, for, the execution must vary with the circumstances demanding the book. With such circumstances, for instance, as the school-age for which the book is intended; the degree of importance attached and the consequent time assigned to this study by schools; the facilites possessed by these for practically illustrating the lessons taught by the book; and the fitness of the teacher to dis-

charge the duty thereby imposed. While schools vary in such particulars, there are very few if any of them yet what they should be, and therefore a text book which would be excellent in one case might be unsuitable in another. There is nothing strange, then, in finding one author writing his book for conditions as he thinks they should be ;—another, probably a pedagogue, writing for *his* special conditions ;—and another writing for such conditions as, he may think, do generally prevail.

But, while conceding latitude of execution as to such particulars, there are others which demand rigid enforcement. Of these the chief are,—the presentation of whatever may be taught in as simple, untechnical, intelligible and entertaining words and thoughts as may be possible,—the exclusion of theoretical statements,—and the selection, from the enormous store of accumulated facts, of those of greatest practical importance. For instance, as respects the amount of avoidable disease and death which man inflicts on himself by ignorance and improvidence, there is no comparison between the amount caused, on the one hand by bad air, water and food, and, on the other hand, by poisons, drowning and tight corsets. Yet, not a few school books dilate on the latter subjects to the comparative or total neglect of the former. What apparent ignorance is thus disclosed of the causes of avoidable disease and death! What lamentable inappreciation of the relative importance of these causes, as illustrated both by daily observation and by volumes of published statistics!

The question, respecting what facts should be selected as of greatest practical importance, merits an additional illustration. In order to comprehend abuses of the body or hygiene, the right uses of our organs (physiology) must be studied; and to comprehend these uses the organs themselves (anatomy) must be studied. But, if the management of one's own body successfully and its protection from abuses be the great practical object of the text-book, then, only so much anatomy and physiology should be taught as may be necessary to this end ; it being conceded, however, that such additional facts, especially from comparative anatomy and physiology, may well be stated, as manifestly tend to arouse the pupil's interest in, to aid

his comprehension and to strengthen his memory of the main facts. Any failure to conform to these views must result in substituting the less for the more important facts and in composing a school book, either objectionably long or defective in consistency, uniformity and relevancy.

Before indicating my conclusions, influenced as they have been by the views now stated, it is just to add that I have read, from begining to end, only a few of the twenty books to be referred to, but that, in addition to examining other contents, I have read all of these books on "Respiration," the subject of greatest importance. For, pure air is man's greatest and most imperative need, this need of all others he least appreciates and this inappreciation causes him greater suffering than does his ignorance of any other subject. With rare exceptions, schools themselves present striking examples of this ignorance and injury; ignorance not only of the pupils but also of their teachers, therefore of the school directors who appoint these teachers, and therefore ignorance of an uninstructed public which, in truth, is responsible for the ignorance of all the others and for the injury done both to pupils and to teachers. How wofully easy it is to find teachers, accomplished perhaps in Latin, Greek, Mathematics, etc., toiling, hour after hour, in rooms crowded with languid pupils and stinking with foul air, which the abused olfactory nerves of the victims fail to detect! Well may a wise parent question, whether his child had not better grow up in ignorance than be subjected to such risks to health, happiness and life. But, this generation of parents is anything rather than wise on this subject and the next generation will be little better unless it should be better instructed.

Of the twenty books,—there are three suitable for children under twelve or even ten years of age. These three books are Fothergill's, Jarvis' Elements, and Foster's Primer. Foster's is the best, but, like Fothergill's and unlike Jarvis', teaches little hygiene. It was well designed as an introductory to Huxley's book.

Of the remaining seventeen books, there are six which are not too difficult for educated children about twelve years of

age. These six are those of Brown, Cutter (first book), Hotze, Martindale, Mills and Steele. Of these I prefer Brown and Mills. However, the books of Cutter and Steele are very systematic and apparently good books, and Martindale's is very highly commended by numerous journals, teachers and principals of schools, but not apparently by medical experts, who are assuredly the best judges both of the correctness and of the relative importance of what may be taught.

Of the remaining eleven books, there are five, which are somewhat more advanced and therefore suitable for older youths. These five are those of Comings, Cutter, (New Analytic), Dunglison, Hutchinson, and Jarvis' (Physiology and Laws of Health). All of these appear to be good books. Cutter is admirably systematic but attempts more, I think, than any teacher, unless possessed of exceptional knowledge of and interest in the subject, could successfully teach. Dunglison's book is a very good one and has been adopted by numerous schools and boards of education; but, as its name implies, it is a "school physiology" alone, and I shall object to it and all school physiologies which teach so little hygiene, until education becomes sufficiently advanced (as it may become but has not) to force schools to adopt a text-book on physiology chiefly as an introduction to an additional school-book on hygiene. The world now needs a knowledge of the former much less than of the latter and in teaching this, the book of Jarvis surpasses them all. None the less, I am inclined, on the whole, to give the preference to Hutchinson's book, which, as appears from the publisher's prospectus, has been introduced into more schools and has been more highly commended by competent medical experts than any of the others.

All of the remaining six books are suitable for educated youths over fifteen years of age, even for collegians. Three of these books, Cleland's, Hitchcock's and Hooker's, are objectionable, because they treat almost exclusively of physiology and, to very slight extent, of its practical application, that is of hygiene. Of these three books, I decidedly prefer Cleland's. However, if my reader seeks a *religious* physiology, which claims to "*manifestly* show the *absurdity* of the hypothesis" of develop-

ment or evolution, then the treatise of the Hitchcocks' is the book par excellence. Should these authors admit that that hypothesis is best which best explains all the facts involved, and should they then duly study and strive to explain, by other hypothesis than evolution, the facts of palæontology and embryology, of anomalies or reversions and of rudimentary organs, then their next edition would probably be improved by erasure therefrom of the two words, "manifestly" and "absurdity," in the above quotation. However, true science can afford to concede charitable consideration to an old "theological bias," especially when hereditary.

The three remaining books, namely, those of Dalton ,Draper and Youman's Huxley are excellent—Dalton's and Huxley's are preëminently so. In fact these two and Foster's Primer bear the unmistakable stamp of the master's hand. Simple in style, clear, full and unambiguous in statement, they give evidence that their authors wrote from the fullness of positive knowledge, acquired by personal observation and experiment, and not solely from beliefs, derived from reading the books of others. These books possess greater vitality than mere compilations and prove that, although many teachers can compile a good elementary school book on physiology and hygiene, yet even the most elementary books can be better written by distinguished experts.* All three of these books deserve the study of intelligent adults as well as of school children and youths, and whoever may master Dalton or Youman's Huxley is thereby prepared to study physiology and hygiene as a speciality or, at least, as taught in many of the text-books now used only in medical colleges.

In closing my conclusions respecting present school-books on Physiology and Hygiene, it may not be amiss to remind the educator, interested in my subject, that the teacher, in order to discharge his duty properly, should be thoroughly instructed in the most advanced of these books, such as Hux-

* Prof. Huxley, having exceptional experience and knowledge of the subject, teaches, as I have found since writing the above, that—"There are a great many people who imagine that elementary teaching might be properly carried out by teachers provided with only elementary knowledge. Let me assure you that this is the profoundest mistake in the world. There is nothing so difficult to do as to *write a good elementary book*, and there is nobody so hard to teach *properly and well* as people who know nothing about a subject."

ley's and Dalton's, and that among many good books of reference there are Wilson's Handbook of Hygiene and his Health and Healthy Homes, Hinton's Physiology for Practical Use, Youman's Handbook of Household Science, and last but longest and best of all, Parkes' Practical Hygiene. Not only must the teacher's knowledge surpass that of his text-book, but he should be supplied with means to demonstrate practically the many things which can be well taught only by object-lessons. And, after all, success will depend far more on the teacher than on his text-book. If every intelligent citizen could be induced to master one or more of these books recommended for teachers, the cause of sanitation would be advanced by a generation at least.

To the views previously expressed in regard to what should be the object and how this should be executed in the compilation of school books on Physiology and Hygiene, I will add, that I strongly advocate with Spencer, Kingsley and other students of educational problems that, after a child has once learned to read, write and cypher, there is no study of greater practical moment than that of the uses and abuses of his own body. I, therefore, fully concur with many others besides Prof. Gregory (President Illinois Industrial University), who urges that this study "demands a place in our entire system of education *from the primary school up*," and I feel confident that this demand will be recognized by the future. In such case, there should be a graded series of such books and the last of these should prepare the student, who might desire additional knowledge, for the special treatises now rarely used except in medical education. Such graded books could probably be so written, that each one would not require, to complete it, more time in the school-room than two hours a week throughout a scholastic year of nine months. This much time would probably amount to about one-fifteenth of the whole time spent in school. Striving to estimate fairly the importance of this study, as compared with present studies, I feel assured that the former exceeds the latter in practical usefulness by very much more than one-fifteenth. Even the boundaries of one's own

State and what it produces are of exceedingly little consequence, compared with what are the boundaries of the human stomach and what it produces! More knowledge of the one, even if it resulted in less knowledge of the other, would tend greatly to promote health and happiness.

None of the books now published comply fully with the view above expressed in favor of a graded series. The two books of Cutter and Jarvis approximate this view. However, if an attempt were made to execute it with the present books, I should be disposed myself to select, though conceding that other books could be well chosen, Foster's Primer as the first book, Hutchinson's as the second, and Youman's Huxley or Dalton as the third.

The lack of public appreciation of this subject causes the above views to be impracticable for the present. The number and the popularity of such books as those supplied by Brown, Comings, Cutter, Dunglison, Hutchinson, Jarvis, Martindale, Mills and Steele—all of which possess merit—indicate plainly what is the demand of an inappreciative public, how superficial is the maximum knowledge now required to be taught and how little is practically attainable. These facts are discouraging to the enthusiast, but to the practical educator, who recalls the much greater neglect of this study by preceding generations, it is very encouraging to find the increasing introduction into our common schools of as many good books as are now published in the United States.

Bovine Vaccination.

By J. W. Dupree, M. D.

[Read Before the Baton Rouge Medical Association.]

A REPLY TO DR. S. S. HERRICK.

That the early history of small-pox is involved in obscurity is conceded. That variola did not originate in Europe, and was unknown there until the beginning of the eighth century,

notwithstanding the strenuous efforts of Gregory, Paulet and others to establish its existence earlier, that it certainly existed in Hindostan and China more than one thousand years B. C., and probably at a much earlier date, is readily inferable from a careful study of James Moore's History of Small-pox, written in 1815. Whether or not small-pox differentiated from the other exanthemata at an extremely distant period, we will not attempt to decide, nor will we seek the assistance of modern biologists in hunting up for it a remote progenitor, since we believe its only variation consists in its less malignancy, due in a great measure to a more advanced civilization and improved sanitation.

The occasional prevalence of variola vaccinia among cattle, vesicular eruption among horses, clavelee among sheep, epizootic disease among apes, swine and dogs, and variolous disease even among pigeons, coincident with the prevalence of variola among the human family, seems to indicate identity in the infecting poison.

Dr. Sanderland's success in communicating variola to cows, by simply covering them with sheets and blankets on which persons suffering from small-pox had lain, and Dr. Seely's interesting account of the infection of five milch cows and one heifer, of ten animals which were permitted to frequent a spot of ground which had been infected through articles of bedding spread there for several successive nights, indicate to my mind not only the possibility of infection through the mucous membrane, but a decided probability of the absorption of the impalpable emanations through the atmosphere, like man.

It is hardly possible that imperfect integrity of the epithelium existed in all six of these animals. That the susceptibility of the inferior animals is far less than man's, is unquestionable. As to the existence of original spontaneous cow-pox I have no doubt. De Paul claims that the animal from which the Beaugency stock came was affected by such. Warlamont asserts that the virus he now propagates is from original cow-pox. Martin, of Boston, who, in his report to the American Medical Association, in 1878, writes that, after offering a reward for information of any case, the expenditure

of considerable effort and money, traveling great distances and visiting over twenty dairies and stables, he failed to discover what he so eagerly sought, informed me last June that he had since seen a case from which he had extracted virus, and was then propagating it. Dr. Ralph Walsh, of Washington city, told me, when I was visiting his establishment, that he was propagating virus from spontaneous cow-pox, the virus having been extracted by his associate in business, Dr. Griffith, who first recognized the case.

The origin of the specific poison is as yet unknown. Aitken writes: "It cannot be now determined definitely whether man first had the disease communicated to him from the animal creation, or whether the lower animals, such as horses or oxen, had the disease communicated to them from man."

Now, as to the comparative merits of bovine and humanized vaccine virus, it occurs to me that it is but reasonable to assume that the protective value of vaccinia intentionally induced is proportionate to its approach in the resemblance of its phenomena to that casually produced upon the hands of the milkers, which alone has been absolutely proven to be permanently protective. One familiar with vaccinia as described by Jenner, Willan, Pearson, Woodville and others could hardly fail to recognize how much more closely transmitted vaccinia resembles it than vaccinia induced by long humanized virus should he note carefully the beginning, progress and termination of two vaccinations upon two subjects, the one from bovine virus, the other from long humanized, in duration and intensity of febrile reaction, less liability to rupture of vesicle, length of time required for separation of crust, more complete destruction of dermal tissue, characteristics of crust and resultant cicatrix, all indicating a corresponding impression upon the system. Dr. Henry A. Martin, of Boston, than whom America has no more competent and reliable authority, asserts that he regards primary vaccination in childhood, with revaccination in adult age, by heifer transmitted virus, equally as protective as two attacks of small-pox, and if I mistake not, assured me last June that he had never seen a case of variola after efficient vaccination with bovine

virus. Dr. J. L. Mear, health officer of San Francisco, in his annual report, writes: "The bovine virus (Beaugency stock) has been exclusively used by the health department since its introduction here, five years ago. The vaccinations since that time reach the large number of over 80,000. This is exclusive of the vaccinations performed by the physicians of the city generally. * * * * * I have yet to see a case of variola or varioloid after a successful vaccination with bovine virus." E. Warlamont, M. D., director of the State vaccinal institution at Brussels, writes: "Out of more than ten thousand vaccinated at Brussels, with animal vaccine, from 1869 to 1870, not one case was, to my knowledge, noted as having been attacked by the epidemic which terrified the world in 1870 and 1871." In 1878, while appealing to his colleagues of the Académie Royale de Médicine, of Belgium, he remarked: "I have previously said that no such case has been reported to me. I repeat it, and up to the present time not one of the numerous medical men whom I have interrogated on the subject has contradicted me. Has there really not been any? That seems to me impossible. However it may be, I appeal to hospital physicians and those gentlemen attached to charitable institutions, to clear up this fact, which, in consequence of the deduction to be drawn from it, requires to be rigorously verified."

In 1881 he again writes: "This appeal has never yet met with any response, and such silence is the most eloquent testimony in favor of the method that I could possibly have desired. This silent eloquence is of greater value when the ardor is considered with which the adversaries of animal vaccination, of whom a few rare specimens still exist, would have collected the failures; or, if we remember, taking the larger and more general view of the immunity procured by all kinds of vaccine inoculations, that Belgium has had the honor of being the native country of the illustrious President of the International League of Anti-Vaccinators, who, no doubt, would have been overwhelmed with the purest delight by such a discovery."

While I have by no means exhausted the testimony in be-

half of animal vaccination, it does seem to me that these statements, coming from such authorities, are sufficient to establish the superiority of bovine over humanized virus as a protecting agent against variola. In proof of the fact that humanized virus has deteriorated and is inferior to bovine, I offer the following from the pen of Professor C. A. Lindsley, M. D., of Yale College:

"Jenner made his first vaccinations with the lymph of the original disease, cow-pox, as it occurred naturally in the cow; and his subsequent vaccinations were made with lymph taken from the human subject. 'Having once inoculated mankind with the disease, the product of that inoculation was used in other human subjects, and thus it has been transmitted by successive vaccinations of persons, through thousands and hundreds of thousands of human beings from the time of Jenner down to the present. Jenner thought that the humanized vaccine lymph lost none of its efficacy by transmission through the human body. That belief is still shared by many physicians at the present time. But from an early period in the practice of vaccination there have been some to call in question this faith, and to doubt if humanized vaccine does not become gradually enfeebled by so many successive transmissions, without, however, altogether losing its preservative property. Now, because until within quite a few years the use of humanized vaccine has been almost universal, and because the National Vaccine Institution of England has maintained, from the time of Jenner to the present, this mode of propagation without renewing the stock from the original source in the cow, it is possible to compare the vaccinations in the early years with those of the later, in the cases in which virus of shorter and longer humanization has been exclusively employed. Fortunately, the statistical records found in the literature of the subject, from the beginning of the century onward, enable us to arrive at very reliable conclusions about the matter. The limits of this paper forbid a lengthy and exhaustive analysis of the statistics. I can only illustrate the prominent facts which they develop by quoting a few of the most convincing statements. In London, during the decade

1870–9, in every million of inhabitants, 4,779 died of small-pox. Of these so large a proportion died in hospitals, where observations were accurately recorded, it was possible to determine that over 37 per cent. occurred in persons who had been vaccinated. The returns of the Registrar-General show, also, that during the same decade over 1,800 deaths from post vaccinal small-pox occurred in London in every million of vaccinated persons. It is just as clearly shown by statistics that only one case in ten of post vaccinal small-pox was fatal; hence, for 1,800 deaths, there must have been 18,000 sick of the disease to every million of the vaccinated population. These were the facts in the last decade, 1870–9. Now let us look back and contrast the facts of a similar period in the early part of the century. During the first ten years, 1800–9, the medical profession almost universally believed that vaccination, except in the rarest instances, prevented small-pox altogether. It must be remembered, too, that this faith was based on careful observations. Jenner's discovery was not universally and unanimously received, but on the other hand met with violent opposition, and the most unanswerable objections were at first urged against it. There were more anti-vaccinators in the first decade of the century than there are now. The advocates of vaccination believed with Jenner, that the protection which vaccination would afford to be exactly that which an attack of small-pox would confer against a subsequent attack. They believed its protection to be neither more nor less than that. The anti-vaccinators, therefore, would have hailed with hilarious delight such facts as that 37 per cent. of the deaths from small-pox were of persons who had been vaccinated; that the post-vaccinal deaths were at the rate of 1,800 in every million of vaccinated persons, and that 18,000 were sick in the same number. It is wholly inconceivable that such facts existed in the first decade of vaccination, or anything approximating to them, and yet failed to be observed by the watchful and zealous antagonists of vaccination. It is not possible that such facts could have then existed and escaped observation. The protective efficacy was then being tested and its

results were watched with the most careful scrutiny, both by its advocates and its opponents.

Jenner announced his discovery in 1798. A committee of the House of Commons, appointed in 1802, to inquire respecting the merits of his discovery, for determining if he was deserving of national reward, after hearing all that the enemies of vaccination had to say, could discover only two cases in which small-pox had occurred after vaccination had been properly performed. In 1806 the medical council of the Royal Jennerian Institute admitted the occurrence of post-vaccinal small-pox, but declared it to be "very rare" and "generally so mild as to lose some of its characteristic marks, and even to render its existence doubtful." In 1811 the National Vaccine Establishment carefully investigated and published an account of two cases, in their report for the year. They mentioned one of these as the severest that had yet occurred to them, and also reported that it was their belief that "since the practice had been fully established, no deaths from small-pox had in any instance occurred after vaccination." This was in 1811, thirteen years after vaccination was begun, and as yet no fatal case known of post-vaccinal small-pox. Remember, too, that the exposure to its contagion was vastly greater than now, because it was constantly prevalent. After 1810 the practice had become very general in other countries and cities of Europe, and the statistics were carefully recorded. They show a like exemption from the contagion of small-pox after vaccination. In Copenhagen, then a city of over 100,000 inhabitants, where vaccination was universally practiced, not a single death from small-pox was registered during the thirteen years from 1811 to 1825. In Aunspach, in Bavaria, with a population of 300,000, at that time thoroughly vaccinated, no deaths occurred from small-pox during the nine years, 1810 to 1818. Between 1804 and 1813, more than two and a half million of people were vaccinated in France, and only seven individuals of these were known to have taken small-pox. It was not until vaccination had been practiced fifteen or twenty years that post-vaccinal small-pox became at all common or frequently fatal. Since then, however, the frequency of post-

vaccinal small-pox has been steadily and regularly increasing everywhere where the long-humanized vaccine virus was employed. Wherever reliable statistics have been recorded, this fact is made evident. In France, 1819–1835, there were recorded 5,467 cases of small-pox after vaccination, of which 51 were fatal. In Switzerland, between 1822 and 1835, 4,211 cases occurred, with 92 deaths. In Copenhagen several epidemics occurred from 1825 to 1835, in which there were 3,093 post-vaccinal cases and 66 deaths. In the London Small-pox Hospital, between 1826 and 1835, there were 915 such cases and 54 deaths, as reported by Dr. Gregory. By comparing these fifteen years, 1819 to 1835, with the first decade of the century, a very conspicuous increase of small-pox after vaccination is made evident, as well as an increased intensity of the disease, as shown by the more frequent deaths, the mortality being nearly 2 per cent. as against a small fraction of 1 per cent. in the earlier period. But during the period from 1836 to 1852, as appears by the carefully kept records of Dr. Marson, of the London Small-pox Hospital, the mortality of post-vaccinal cases has increased to 6.9 per cent. From 1852 to 1857, even under better hygienic conditions, the death rate still advancing, reached to 7.6 per cent. in the same hospital. And in the last decade, 1870–'79, there were 15.000 cases, with a death rate of 9.2 per cent. Whatever view of the statistics of vaccination, as practiced with long humanized virus, one may take, the conclusion is inevitable that the earlier the period in the use of vaccination the smaller was the death rate, and the later the period the larger it becomes. From a small fraction of 1 per cent. previous to 1820 it has reached nearly 10 per per cent. in 1880."

While the question of supply may be a new issue, it is one of considerable importance. Vaccine famines do occasionally occur, which no amount of forethought and good management thus far has been able to prevent. Difficulty was encountered in the winter of 1881–2 in protecting the cadets of the Louisiana State University and Agricultural and Mechanical College against small-pox (there being three cases within thirty yards of their quarters), owing to the non-taking

quality of the so-called bovine virus with which our section was then flooded. It seemed impossible to procure sufficient humanized virus, notwithstanding an urgent appeal was made to the State Board of Health, which resulted in obtaining a very small portion of a crust. These facts caused Col. Wm. Preston Johnston, then president, to establish, in connection with the school, a station for the production of heifer transmitted virus. The virus produced did protect the cadets, and continues to protect them. The continued maintenance of an establishment for the production of animal vaccine lymph is alone competent to prevent in the future a vaccine famine, since the supply need only be limited by the demand. This will effectually do away with the necessity of tapping and retapping vaccine vesicles as a source of supply—a measure much insisted upon by Jenner, believing as he did that any interference with the normal and regular development of a vesicle would result in imperfect protection.

Considered in a mathematical aspect, you regard the risk of syphilitic infection by the use of humanized virus as infinitesimally small. Its bare possibility should be sufficient reason for its non-employment. That vaccine syphilis is a real danger I am fully convinced; that it has been very much exaggerated and also very much under-estimated is doubtless true. You assert that of 50,000,000 vaccinations and revaccinations with humanized virus in England and America during the last ten years no well authenticated case of vaccinal syphilis has come to light. In answer, I would refer you to Sir Jonathan Hutchison's admirable and unanswerable report in the 5th volume of the *Medico-Chirurgical Transactions.*

Do you not regard his cases of vaccinal syphilis as well authenticated? Fourteen of the vaccinees of this report were vaccinated from a vaccine carefully selected at one of the "stations" of the English Vaccine Institution, and of the fourteen, eleven cases of vaccinal syphilis were produced! I am not sure that these cases occurred during the time mentioned, still the fact is valuable. The wonder is, that so few well authenticated cases exist, and its only solution rests in the fact that remote syphilitic manifestions are so difficult of

recognition, and in an inherent reluctance on the part of medical men to report results so unfortunate at their own hands. You claim that bovine virus is liable to be very severe; not so in my experience. Baton Rouge, the home of many of the charitable and public institutions of the State, a number of schools, both public and private for both males and females, has furnished during the last two years ample material for thoroughly testing bovine virus in this particular, and I have failed to encounter in a single instance undue inflammatory action. I have never seen a case of erysipelas in any way connected with bovine vaccination; and Martin writes:

"The immunity from erysipelas, either during the course, or after the course, of the vaccinia induced by the use of true bovine vaccine virus is something ascertained beyond all doubt or question."

In fact, he regards it as prophylactic of erysipelas. Mr. Ceely, in 1840, observed and declared that this tendency to undesirable intensity in original vaccinal variola is modified by successive inoculation of young animals. The virus of which Mr. Ceely speaks was transmitted through a series of eleven animals. Dr. Martin says:

"The disease now induced by animal virus, after eleven years of bovine transmission, is marked by a certain intensity and perfection of development, but not the slightest tendency to inflammatory suppurative action or ulceration, or erysipelas in any form or degree."

While you are willing to waive, as a minor consideration, its severity, you insist that its uncertainty renders it untrustworthy. Again, my reference is at variance with your view. In primary vaccination (I use none but lymph fresh from the heifer), with me, success is the rule, failure the exception. In revaccinations I have obtained vaccinal effect in at least 70 per cent. Dr. E. Warlamont gives, as a result of extensive revaccination with animal virus in Belgium, 62 per cent. Dr. Martin claims, that from the very first, the remarkable success in animal virus in revaccination was generally, indeed, universally noticed, and that the result of primary vaccinations with the new virus are now almost invariably successful, in

the practice of experienced vaccinators, at the first attempt. In revaccinations he claims success in 72 per cent. Others claim success in 90 per cent., some few, success in 96 per cent. Such, undoubtedly, would indicate inefficient primary vaccination. I assure you, the oft-repeated assertion that bovine vaccination is more successful in Northern communities than here are neither reasonable nor true. That heat and moisture are real enemies to vaccine virus is undeniable. The vaccine station in connection with the State University at Baton Rouge has demonstrated the fact that cow-pox lymph can be transmitted through the system of a series of young heifers in this climate continuously, without undergoing any essential change or deterioration. We are now, and have been since January, 1882, producing lymph of excellent quality. We have used it extensively, with reasonable results. We have distributed it in large quantities, with an expressed desire and readiness to duplicate supplies in case of failure, and have yet to receive a single notice of such result; on the contrary, are in possession of numerous congratulatory testimonials of its excellency—notably, I would refer you to the published statements of the Inspector of the State Board of Health (of which board you are the secretary) as to the efficacy of the virus. As a sufficient refutation of your assertion that "the experiments at Baton Rouge last season gave about the same results upon human beings as your past and present trials of the Northern product," I offer the above referred to reports. That Dr. Zayas did propagate, successfully, virus in New Orleans, on the heifer, I can bear witness. Having, at the time, the honor of representing the parish of East Baton Rouge in the General Assembly, and occupying the position of chairman of its committee on health and quarantine, I saw much of his labors, and at the request of the Board of Health, presented a petition to that honorable body, asking pecuniary aid for the propagation and gratuitous distribution of animal virus. My efforts failed, and the following, which I extract from the petition then offered, will explain his subsequent failure. Speaking of his "means," he says: "Mine, unfortunately, have been subordinate to my intentions and desires, and now, that they are all but com-

pletely exhausted, I am nearing the point at which I am compelled to declare my inability to longer bear the greatness and burden of an undertaking originally suggested by motives of common humanity and public usefulness." In evidence of the energy of the virus produced by him, I submit the following from the same paper: "Considering the few months which have passed since the establishment of the central depot of vaccination at New Orleans, the statistics which it is able to supply are necessarily meagre. The results, however, obtained by revaccination are still more important than those mentioned above. Fifty-three subjects of various ages, and among them seven children, the eldest eleven years old, have been revaccinated. The success of the revaccination was complete in forty-four cases, which number includes the seven children. To the number of those thus successfully revaccinated belong, out of six members, five of my confrere, Dr. Labatut's highly respectable family. It is not unworthy of notice that the 80 per cent. produced by the revaccination belong, almost exclusively, to the more elevated classes of society, whence it is probably inferred that original vaccinations were attended to with due care, and the matter employed selected from the better class."

That the business of vaccine production offers abundant opportunity and temptations for fraud was amply verified during the month of June last, while visiting a majority of the vaccine farms of America, at the request of Col. Wm. Preston Johnston, President of the Louisiana State University, and S. D. McEnery, Governor of Louisiana. Of those visited, Dr. Martin's, at Boston, Dr. Griffin's, at Chicago, Dr. Foster's, at New York, Dr. Walsh's, at Washington, and Dr. Higgin's, at St. Louis, are entitled to public confidence. These gentlemen superintend their respective farms in person, and are men prominent in the medical profession, and experts in this specialty. The remainder I regard as places where so-called bovine virus is gathered from animals, without regard to age or condition, by persons lacking training, experience, judgment and knowledge of the business, but possessing, in a marked degree, the faculty of obtaining the largest return for

the smallest outlay, and, as I am informed, without moral integrity sufficient to prevent them from resorting to dishonest measures to effect a sale of the villainous stuff produced by them, a favorite one of which is to sell on the reputation of one of the above named gentlemen.

Nor can I agree with you in the opinion that the idea of general compulsory vaccination in Louisiana is visionary and impracticable. Chicago enforced vaccination, Washington City did likewise, and in 1882 Atlanta adopted the following ordinance:

"Any citizen of the city of Atlanta over fifteen years of age who has not been successfully vaccinated, and who shall refuse or fail, after twenty-four hours' notice, to be so vaccinated, may be summoned to appear, or may be arrested and taken before the Recorder's Court, and may, on conviction, be fined in a sum not exceeding $500, or be imprisoned not exceeding thirty days, *either* or *both*, in the discretion of the Court, for *each* day such person so refuses or fails. And any parent, guardian or other person having control of a child under fifteen years of age, who has not been successfully vaccinated, and who shall fail to have such child so vaccinated after twenty four hours' notice, shall be subject to the penalties above prescribed."

This was enforced, and resulted in a rapid and effectual stamping out of the disease.

In case the State should fail to pass the necessary laws, why cannot the incorporated cities and towns, and I might add the police juries of Louisiana, pass a similar ordinance? Surely not because the people of Louisiana have failed to reach such a stage of civilization as to appreciate its value, since I imagine they will compare favorably with those of the cities above mentioned. That variola can be successfully combatted and eradicated alone by universal efficient vaccination and revaccination I am quite sure you believe. To secure this, compulsion is necessary. Thus far, the failure to procure the necessary legal enactments is rather due to a want of co-operative effort on the part of the members of the medical profession than to a lack of appreciation on the part of the

laity, of the protective value of vaccination, since the more intelligent of them gladly avail themselves of its prophylactic influence.

That such laws are needed, especially in this State, seems to be plainly indicated by recent statements made by Dr. Joseph Jones, President of the State Board of Health, of the number of the cases of small-pox and number of deaths during the last eleven years. He thinks that it would be as easy to chain the mouth of the Mississippi River with ropes of sand as to arrest this loathsome and fearfully contagious disease by burning sulphur and scattering carbolic acid, and I may add, the present inefficient system of the so-called gratuitous vaccination, and that, too, performed with long humanized virus. Compulsory vaccination is in practice in several countries of Europe, and partially in a number of States of this Union; and it is an undeniable fact that wherever compulsory laws exist and are properly enforced, conclusive evidence is furnished of their protective value. It is as much the duty of the State to enact laws to protect its citizens from small-pox, as to enact laws to exclude yellow fever by quarantine regulations. Nor would such laws be undemocratic, since all would be protected alike, without regard to race, color or previous condition. The only serious objection to compulsory vaccination has been removed by the use of animal virus, in as much as it is impossible to transmit disease through its means when of proper quality. That the State is competent to pass laws for the prevention of small-pox there seems to be no doubt. The question is one of such paramount importance that it cannot be properly discussed in a paper of limited scope, and I will dismiss it with the following quotation from a discourse read by Hon. Dorman B. Eaton before the American Public Health Association, and he is a gentleman well versed in matters pertaining to sanitary law:

"The same device or human law that says thou shalt not kill directly, says thou shalt not kill indirectly; thou shalt not kill by quackery, nor by nostrums, nor by poisoning the air or water which the Creator has prepared for all His children.

Thou shalt not kill by neglect or ignorance, which are a violation of your duty as a man and a citizen."

In conclusion, the non-success with bovine virus which you claim, I regard as conclusive evidence that the production of animal virus should not be left solely to private enterprise nor degraded to the level of a mere commercial trade, but under the management of a competent physician, who in turn should be under the direction and control of the State Board of Health. The cultivation of animal lymph of a quality reliable, safe and trustworthy requires skill, care and labor. The period for extraction is very brief, and in our moist, warm climate. during the summer months, lymph deteriorates rapidly. Prior to the establishment of the bovine station at Baton Rouge there existed such a reluctance on the part of the cadets and attachés of the University to submit to vaccination, that an order to enforce submission was found necessary. The citizens of Baton Rouge, in a great measure, shared this reluctance Since its establishment, familiarity with the whole process has effectually done away with this, and ample opportunity is afforded for witnessing the complete exhaustion of the susceptibility of the system to vaccinia after successful vaccination with bovine lymph, by the oft-repeated unsuccesfful attempts at revaccination on the part of the cadets themselves. The cadets not only furnish such evidence of their faith in its innocence and protective value, but impress their families and friends with a like feeling, and to them they furnish supplies which they can get at any time free of cost. The citizens of Baton Rouge are thoroughly vaccinated, and notwithstanding they are furnished with an occasional case of small pox from New Orleans, still enjoy immunity and rest in a sense of security against this disease. What has been accomplished in Baton Rouge can be effected elsewhere.

TRANSLATIONS.

ZONA.

[Translated for *N. O. Med. and Surg. Journal* by L. F. SALOMON, M. D.]

One of our most laborious confrères, Dr. Paul Fabre (of Commentry), has just published upon the subject of Zona (Herpes Zoster), an important monograph, based upon eighty-seven observations, mostly personal, which was read before the Medical Society of Anvers. We had intended to devote to this article a bibliographic review, but thought that it would be more interesting to present to our readers the conclusions formulated by the author, and which constitute an excellent resumé of the work.

Zona is a clearly defined disease, *sui generis*, which henceforth merits a description entirely distinct from what is classed by dermatologists as herpes.

Zona is in fact characterized less by the nature of the cutaneous lesion than by the seat of the lesion, over the course of a nerve or a nervous plexus.

The patches of zona, although generally separated one from the other by intervals of healthy skin, may nevertheless be contiguous, and the eruption thus forms an irregular band covering a portion of the body.

Upon the limbs the disease appears to me to always occur in the form of separate islets.

The patches manifest themselves in an order essentially variable; sometimes simultaneously, at other times from behind forward, or from above downward; at other times again altogether irregularly, disappearing completely in the order of their appearance.

In the present state of our knowledge it would be very hazardous to say that the order of appearance of the patches is due to the mode of action of the cause, or to the functional mechanism which gives rise to the disease.

Neither sex, age or season appear to have any influence in the production of this affection. The left side of the body is as often affected as the right.

In young people zona is very seldom painful in any of its stages; in adults it is often very painful, sometimes even before the eruption, and again, during the whole time of its duration. It is in those above fifty years of age, and more so in old age, that zona leaves, after the cure of the cutaneous lesion, persistent and often very rebellious neuralgias.

Taking into consideration the course of the disease, we find that zona manifests itself in the following forms:

I. An acute febrile form, which has caused certain authors to class this disease alongside of exanthematous fevers.

II. A sub-acute, or better, apyretic form, by far the most frequent, and essentially represented by the vesicular or vesico-pustular eruption, seated over the course of a nerve and usually accompanied with localized pains over the course of this same nerve.

III. A chronic form, excessively rare, and of which the majority of cases representing this type have led to its being called *recurrent zona*, or a relapsing zona. As to true recurring zona, it is very exceptional.

From a pathological point of view, it is difficult, in the state of science of the present day, to say whether alteration in the spinal ganglia, or lesion of the fibres known as trophic nerves, or neuritis, are the causes of zona, or a consequence, or even a simple coincidence.

Without doubt, certain cases, such as those of Messrs. Charcot and Cotard and that of M. Aug. Olivier, lead us to believe that alteration of the nerves was primary, and that the zona was only symptomatic.

But, on the other hand, other cases of zona, cases of traumatic zona, and in the first place the observation recorded by Charcot in the service of Rayer, would lead us to believe that the nerve lesion, if it exists, is not uniformly of central origin, but very often of peripheric origin. Besides, the majority of cases of spontaneous zona, those, among others, which are attributed to the influence of cold, those, above all others, which go through their complete evolution without being accompanied by any notable pain in the effected region—these cases do not appear to owe their origin to a neuritis. Neuritis, when it does supervene, is always consecutive to the eruption.

The nerve lesion may consist less in a veritable inflammation than in purely congestive phenomena, having for their seat the tropic nerves; and we might in this way explain cases of zona without pain, rheumatic zona, and also secondary zona, due either to poisoning by carbonic oxide (case of Leudet) or to indigestion (case of Lonnier); or again, zona of the third intercostal space, as observed by Van Hensinger, in the course of an attack of pneumonia in the summit of the right lung, terminating in recovery.

Besides, for better information, we consider in the pathology of zona two grand classes:

I. *A primary or idiopathic zona.*

II. *A secondary or symptomatic zona.*

Primary zona is that which supervenes upon the influence of the impression of cold, of strong moral emotion, of digestive troubles, etc.

Symptomatic zona is that which is a sequence of an affection of a nerve. This affection may itself be of a *central* origin or a *peripheric* origin.

Zona due to a central nervous affection depends, sometimes upon a cerebral hemorrhage (and in this case it may have its seat either upon the hemiplegic side or upon the opposite side), and sometimes it depends upon an affection of the cord, itself primary or secondary.

Secondary zona, symptomatic of peripheric nerve lesion, may result from traumatism, from local paralysis, or from an old neuralgia.

If we were called upon to define the nature of zona, for the purpose of assigning it a place in nosology, we admit that the task would be difficult, because we find too absolute the opinion of those who like MM. Parrot and Demueles would make of zona a simple effect, or phenomena following upon neuralgia.

It appears to us that M. Hardy is more prudent in seeing in zona nothing more than a special inflammation of the skin, accompanied ordinarily by pain.

As for us, our general conclusion must necessarily be very circumspect; considering on the one hand that neuralgia is often absent in zona, and on the other hand that when neuralgia exists it has a variable duration, and appears at different periods of the disease; and finally, remembering that this neuralgia manifests itself with characteristics eminently dissimilar, either as lancinating, gnawing or burning pains, or as an itching or tearing sensation.

We maintain that neuralgia is a symptom too irregular to suffice for attributing to it alone the phenomena of zona. *A fortiori*, it appears to us premature to wish to make zona a nervous affection, above all, if the *neuralgic element* is given as sufficient cause to affirm the nervous nature of this disease.

And from the point of view of science of to-day, we cannot do better than to place zona in a class intermediary between cutaneous diseases and diseases of the nervous system, noting that the cutaneous inflammation is an indispensable element in this morbid entity, but insisting upon this unique peculiarity in the pathology, which is entirely characteristic, which the cutaneous lesion of zona presents—that is, to remain localized over the course of the nerves.

Zona generally terminates in recovery at the end of one or two weeks. If the eruption ulcerates, and, above all, if it is complicated with gangrenous patches, the duration of the disease may be prolonged to one month or six weeks, or longer. Very often there remain, after recovery, greatly discolored cicatrices.

In the treatment of zona it is necessary to take into account the nature of the eruption as well as the age of the patient, his constitution and the first cause of the affection. There is no uniform treatment of all cases of zona.

Every effort should be made by protective dressings to prevent the breaking of the vesicles. Often emollient, or drying

applications, suffice; at other times it is necessary to have recourse to compression, either by collodion or by appropriate bandages. Sometimes light cauterization with nitrate of silver or perchloride of iron will be advantageous, and in other cases it will be necessary to resort to internal treatment (febrifuge, quieting, anti-scrofulous, etc.), according to the condition of the patient.—*Journal de Médicine de Paris.*

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

PUBLISHED MONTHLY.

Communications relating to medicine are invited from every source. Matters of more than ordinary moment are occurring daily to country physicians, brief reports of which this Journal would be glad to get.

In sending such communications, address DR. RUDOLPH MATAS.

Matters pertaining to business should be addressed to DR. L. F. SALOMON.

Direct in either case to P. O. DRAWER 282, NEW ORLEANS, LA.

EDITORIAL.

THE AMERICAN MEDICAL ASSOCIATION.

This representative medical organization held its Thirty-fourth Annual Session at Cleveland, Ohio, June 5th–8th, 1883. The large attendance proclaims its popularity, and throughout the meeting was displayed that zeal in favor of medical integrity which has for a number of years characterized this body. The action of the Committee of Arrangements in requiring that every member should sign a pledge to support and defend the Constitution, By-laws and Code of Medical Ethics of the association seems to us to smack of the gag-law system frequently seen in political organizations. The tenets of the American Medical Association are too well known to have required this additional safe-guard to its integrity. It shut off debate, and prevented any chance for the expression of opin-

ions which might possibly clash with those of the judicial council. The Code of Medical Ethics being the guide of members of the association, the signing of this test oath seems both undignified and unnecessary.

The election of Dr. Austin Flint, Sr., to the presidency was but the tardy rendering of justice to one of the most honorable and distinguished medical men in the country. The surprise to us has been that the merited honor had not been meted out to him years ago. His election was another vindication of the code, but aside from this it was a just recognition of his high character and professional attainments.

The long-anticipated *Journal of the American Medical Association* is now a fixed fact. The rudder, held by the steady hand of that veteran medical navigator, Dr. N. S. Davis, will hold this literary craft in the proper course. We predict a hearty support, and feel assured a brilliant future awaits it.

From a synopsis of the addresses contained in the *Medical Record*, the range of subjects embraced in the proceedings was larger and their character more entertaining than usual. They will be transmitted to the profession through the medium of the association journal, and will be more generally read than if published in a cumbersome volume of transactions as was hitherto the case.

The association adjourned to meet in Washington, D. C., the first Tuesday in May, 1884.

HEALTH OF NEW ORLEANS.

Could we expunge the deaths from small pox from our mortuary records, New Orleans would show a condition of health which, although not phenomenally small for this season of the year, is encouraging. Malarial fevers are less prevalent than for several years. Not a case of yellow fever has been introduced at the quarantine station on the Mississippi River, and not a case even of suspicious nature has been discovered in the city. Disinfection and careful sanitary inspection has been inaugurated by the New Orleans Auxiliary Sanitary

Association, and is being rapidly pushed forward. The inspection service on the railroads and steamboats is complete, and is under the guidance of Dr. S. M. Bemiss, member of the National Board of Health. We are assured by the chairman of the Executive Committee of the Sanitary Council of the Mississippi Valley, that this work will be continued under its control during the entire season—the Council assuming the authority on the first of July.

The Mississippi Valley may rest assured that New Orleans is determined to protect herself and all interests by the wisest efforts that can be inaugurated, and may feel satisfied her citizens so fully appreciate the evil results of an outbreak of yellow fever that extreme measures will be enacted to prevent its introduction or spread.

DR. WM. E. KENNEDY.

A veteran landmark in medicine has gone. On Sunday, June 10th, 1883, Dr. William E. Kennedy, a native of New Orleans, died at his resdence, No. 168 Julia street, this city, aged 73 years.

We reprint the following from a notice of his death which appeared in one of our local journals.

The announcement of the death of this distinguished and venerable physician will not cause surprise among those whose privilege it was to know him. His health had been failing for several years, and the nature of his ailment—disease of the heart—gave his family and friends no ground for hope. No one knew better than himself that his hours were numbered, but with superb courage "he fronted fate with high disdain," and, supported by an unshaken and sublime faith, met death as cheerfully and peacefully as if he were a message of glad tidings—an angel of mercy—rather than an enemy.

No martyr who died with the halo of a blessed immortality encircling his brow ever evinced grander fortitude or exhibited a more beautiful faith than did this heroic gentleman in his last moments. Deeply learned in his profession, a classical scholar, a lover of literature and art, he was withal a Christian gentleman, and died as he had lived, pure in heart as a child—comforting those about him and bidding them be of good cheer. His death will cause deep grief to his numerous

family and to a very wide circle of warmly attached friends, but it will always be a consolation to remember that he went to his rest painlessly and sweetly as to a pleasant slumber, and with an absolute assurance of finding that "peace which passeth all understanding" in the arms of the Great Physician.

Dr. Kennedy belonged to one of the earliest American families of Louisiana, and was born in New Orleans, August 30, 1809. His mother was Miss Sophia Meison, a native of France, and his father was Thomas Seilles Kennedy, of Chestertown, Md. After studying under private tutors here, Dr. Kennedy went to Paris to finish his classical studies and to begin a medical course, he having determined to pursue the profession of medicine. In the fall of 1830 he returned to this city and matriculated in the Medical Department of the University of Pennsylvania in 1831.

He married his first wife, Miss Jane Carr, of Philadelphia, in 1830, and several children were the fruit of this union, some of whom still survive. In March, 1833, he graduated with high honors, and received from Georgetown College the degree of Master of Arts, in recognition of his scholarly attainments. Returning to New Orleans in 1834, he shortly thereafter effected a partnership with Dr. Warren Stone, and together they conducted the *Maison de Santé* hospital. His reputation was soon established as an able and successful practitioner, and a lucrative practice enabled him to amass a very considerable fortune, which, however, was largely reduced in after years by the war and other causes.

Losing his wife in 1840, he married in 1843, Miss Charlotte H. Pierce, half sister of the late Levi Pierce, who, together with several children, survives him.

Dr. Kennedy was noted not only for his skill as a physician, but for his probity, charity and high sense of honor. He combined in a remarkable degree, dignity and gentleness, and was a fine example of a gentleman of the old regime.

A CORRECTION.

The following letter explains itself:

Editors New Orleans Medical and Surgical Journal:

GENTLEMEN: Will you be kind enough to insert the following in the July number of the JOURNAL:

INUNDATIONS IN LOUISIANA—THEIR INFLUENCE ON HEALTH.

In the article on this subject in the last June number, Dr. Ladmirault, of Pointe Coupee parish, is represented as having

"confessed that he did not know whether the overflow (1882) caused" the unusual sickness or not. In an interesting letter from this able physician, who has forty-four years' experience of the diseases of his section, he objects to the above representation of his views, and makes the following statements:

"My opinion, as that of all old physicians in the country, is that overflows do not have any direct influence in producing diseases." "In 1862, after the complete recession of the water, malarial fevers were no worse than usual." "During my forty-four years' experience here as a physician, I have seen years without overflows with more sickness than in 1882 when overflowed." "In fine, there was not in 1882 any augmentation of diseases on False River [Dr. Ladmirault's section of Pointe Coupee parish] because of the overflow, and there was almost entire absence of hæmaturial fever."

Yours, etc.,

STANFORD E. CHAILLÉ, M. D.

Reports of Cases.

CONGENITAL OCCLUSION OF THE RECTUM.

Reported by G. H. Tichenor, M. D., Red River Landing, Louisiana.

On March 24th, 1883, I was called to see Mrs. B., whom I found in labor. She had previously borne children. The presentation was natural, and delivery was soon accomplished. The child, a male, was to all appearance perfect, and weighed nine and a half pounds. It nursed well, and was strong and vigorous. At my visit the next day my attention was called to the fact that the child's bowels had not acted. The child was comfortable, but to remove the retained meconium a dose of castor oil was administered. On the following day I found the oil had not acted, and as the anus had appeared on superficial examination to be normal a mercurial cathartic was administered. On returning to see the child a few hours after-

wards found that no action from the bowels had followed the medicine. There appeared to be no pain, but the child threw up every three or four hours. Sleep was natural. Being satisfied that something was wrong, I made a careful examination, and found that there was occlusion of the rectum about one inch above the well formed anus. I informed the family that the child's condition was such that nothing short of a surgical operation would save the child's life. The child's condition seemed favorable for the operation. It occasionally threw up, but slept well, and did not suffer pain. It was not until April 6th that it became uneasy and gave evidences of acute suffering. Circumstances prevented anything being done until April 9th, when the child's condition was truly pitiable. It showed signs of great distress. Tympanites existed to the fullest extent; looked as if its abdomen would burst. I told the family that unless operated upon it would not live twenty-four hours. They consented, and I operated as follows: A small speculum was introduced through the anus and pressed steadily upward until it met with resistance. It was then carefully opened, and the end of the instrument seemed to rest against a membrane. I passed a bistoury carefully up and made a transverse cut. This incision was followed by the passage of gas which rushed out with great force. I then made a cut intersecting the first, and this was followed by the escape of a large quantity of meconium. The child was at once relieved. The tympanites, however, did not entirely subside for three days, owing probably to the distention having paralyzed the muscular coat of the intestines. At this date, May 20th, the child is in perfect health, and is one of the finest boys in the country.

Reviews and Book-Notices.

Labor Among Primitive Peoples, Showing the Development of the Obstetric Science of To-day from the Natural and Instinctive Customs of all Races, Past and Present. By Geo. J. Engel-

mann, A. M., M. D., Professor of Obstetrics in the Post-Graduate School of the Missouri Medical College; Master in Obstetrics of the University of Vienna; Fellow of the American Gynecological Society; of the London Pathological Society; of the Obstetric Society of London; Consulting Surgeon to the St. Louis French Hospital; St. Ann's Lying-in Asylum; Mexico Hospital, etc. Second edition. Revised, enlarged and re-arranged. Fifty-nine illustrations. St. Louis: J. H. Chambers & Co., 1883.

Though one year has elapsed since Dr. Engelmann's work was first submitted to the scrutiny of the critic, and its conscientious and instructive contents won a distinguished position for its author as a thinking obstetrician, its novel teachings, though well known to specialists, have not yet been sufficiently disseminated to preclude a review of this second edition or to limit our task to the mere reiteration of former opinions. Besides, the numerous and valuable additions that have been introduced since the first publication of the book, and the complete transformation it has undergone in the arrangement of its contained matter, have sufficiently increased the value of the work to deserve for it the space that we will here devote to its brief analysis.

The title of the work, alone, is sufficient to arouse the attention of the medical reader, and a glance at the cover illustration—the reproduction of a most curious archeological relic, representing an ancient Peruvian labor scene—is more than sufficient incitive to peer into the pages so richly laden with curious information.

Upon careful perusal it will be found that the author has not simply placed before the reader a vast array of interesting facts—a curious compilation of ethnological customs and practices—but that he has also combined the *utile* with the *dulce* in the practical teachings deducted from a motley and exhaustive mass of anthropological observations. Indeed, in the comparisons instituted by the author between the crude methods of primitive peoples and peoples of former civilizations with the teachings of the scientific obstetrics of to-day, he has caused ethnology to subserve an important auxiliary purpose in obstetrical research, lending to the latter science a new and

brilliant light in its search for true and practical guiding principles.

It is interesting to learn, as we peruse the first chapter devoted to the study of pregnancy, parturition and child-bed among the savage races, that such multitudinous affinities exist between the customs, practices and superstitions of the barbarous peoples and those of advanced civilization. We are told, for instance, how the moon, the world over, is connected with the menstruation of women; "how in France, in past centuries, our 'monthly flow'; the German '*Monatliche Reinegung*' was called the tribute which woman renders the moon; the Mexican mother says of her menstruating daughter, '*tiene la luna*' (she has the *moon*); the Indian speaks of a woman in this state as having 'moon in the ass'; so the world over. Again, the idea of cleaning, purifying, is expressed in the German '*Monatliche Reinegung*,' whilst the natives of Africa, of India and of our Western Territories, still consider the female, at that time, as unclean and isolate her—keep her away, especially from men, in a separate hut; and that she may be well known to all when she mingles with others, she is obliged to wear certain well marked colors during the continuance of that period." This is more particularly the case among the numerous still natural people of Asia, as observed among the Nauch girls whom the author observed while traveling in their country. This idea of uncleanliness clings equally to the puerpera during the continuance of the lochial flow, and, remarkably enough, in different degree to the *lochia*, *rubra* and *alba*.

"How reasonable! The menstruating woman is confined in a separate hut, is isolated, does not work, rests, is not exposed to cold or exertion, and thus escapes the numerous uterine troubles which befall the civilized female by reason of ignorant or careless exposure during this period of increased sensitiveness." Here we find that the same great wish prevails among all races for the birth of male offspring; the Indians, negroes of Africa instituting numerous ceremonies, by the faithful observance of which they hope to produce the desired sex. The cessation of menstruation is also found to be the most gener-

ally recognized sign of pregnancy throughout the world. We also find that the universal recognition of experience as the essential qualification in a knowledge of delivery, has placed age, in the shape of an old midwife or "granny," in the position of trust at the time of the momentous trial among the women of almost all peoples of the earth. The midwife is met with in all countries, all tribes; she may be metamorphosed, but the apparent differences here and there are mere protean phases of the same individual. Among the savage tribes of the Russian empire, each village or settlement has an old crone who possesses the power of second sight, and by this gift and other similar means drives away disease, but above all haunts the lying-in chamber, where she causes much harm by her ill-timed manipulations. The Navajos and the Nez Percés have their *sage femmes*, and in Mexico the *partera* is always ready with her nauseating herbs and concoctions. The Quapaws, Pueblos, Klatsops, Klamaths, Rees, Grosventres and Mandans have their old crones always redolent with their obstetric pretensions. "From all that we have seen, it appears that the *Yi* of India, the *Dye* of Syria, the herb-knowing hag of Mexico and the midwife of the Bible, are very much the same in their habits, their qualifications and their knowledge. It is the same habitual old woman who figures in all countries and at all times, and with whose peculiarities we are quite familiar. In cases where the midwife is at a loss the aid of the medicine-man is sought. The Baschkirs rely upon their '*devil seer*,' who discovers the presence of the evil spirit and drives him away, if rewarded by a sum of money or a fat sheep. Among others, however, a priest is called, who hastily mumbles a few verses from the Koran, spits into the patient's face, and leaves the rest to nature."

In the second chapter over one hundred pages are devoted to the study of posture in labor. It is the most important and valuable in the book. It is, in fact, the pedestal upon which the work is built.

The zeal, enthusiasm and industry with which the author has prosecuted the inquiries connected with this part of his task are alone commendable. And the profusion of details,

facts and illustrations that enrich this section clearly bear him out when he says that he has "ransacked the libraries east and west" in quest of data that had any bearing with his subject. It would be impossible to follow him, in the narrow limits of this review, as he travels over the globe in quest of ethnological data for the elucidation of his delicate subject. Suffice to summarize the facts obtained, as follows:

The position adopted by the parturient woman, among peoples whose parturition is governed by instinct and not by modern obstetrics, *i. e.*, savages of to-day and civilized races of the past, may be classified, either as:

(1.) The difficult perpendicular or upright position, as is observed commonly among Sclavonians and Silesians, in India and parts of Africa, and even, though rarely, in the United States. (2.) The inclined position, (*a*) the erect sitting (Australia, Malaba, Guatemala and Calabar); (*b*) squatting, as in defecation, as among the Pawnees, Tonkawas and Coyotero Indians); (*c*) kneeling, very common among American Indians—it is, in fact, the most common among the red and yellow races; (*d*) semi-recumbent, by far the most frequent among the ancients, especially among the more civilized of olden times, and among the savage races of the present day. (3.) The horizontal or recumbent, such as the *dorsal decubitus*, the obstetric position of the present day on the Continent of Europe and in America; *the position on the side*, as customary in England, and the *prone on the chest and stomach*, is is observed only among the Creek Indians, the most rarely observed among savage races.

It is important, in studying the positions adopted by women in labor to observe that the same woman often assumes various positions in the course of a natural labor; usually, she is more at her ease in the early stages, and not until the pains become more regular, rapid and severe does she take the position in which she is confined. If we think over this observation, the recollection will strike most of us, who have had some acquaintance with the lying-in chamber, that the parturient woman, as the author remarks, in the agony of the expulsive pains, raises hereself in bed into a semi-recumbent

position, in spite of the usual injunction of the obstetrical attendant to "lie down," and delivers herself in the position which instinct impels her to select as the one best adapted to an easy and rapid delivery. Ethnological research goes to sustain the truth of this observation, and the facts brought forward by Dr. Engelmann seem to us so sensible and well substantiated, that we must cordially concur with him when he says:

"*The care with which the parturient women of uncivilized people avoid the dorsal decubitus, the modern obstetric position, at the termination of labor, is sufficient evidence that it is a most undesirable position for ordinary cases of confinement; and I am convinced that the thinking obstetrician will soon confirm the statement not unfrequently made by the ignorant but observing savage, by negro and Indian, that the recumbent position retards labor, and is inimical to easy, safe and rapid delivery.*"

Also, that "*of all the positions, the semi-recumbent is the most serviceable, and should be adopted as the obstetric position in all ordinary labor cases.*"

"If we look upon the structure of the pelvis," says the author, "more especially the direction of the pelvic canal and its axis, if we take into consideration the assistance which may be rendered by gravity, and above all, by the abdominal muscles, the present obstetric position seems, indeed, a peculiar one.

"The contractions of the previously inactive and rested abdominal muscles are a powerful adjunct to the tired uterine fibre in the last prolonged and decisive expulsory effort, and in the dorsal decubitus they are somewhat hampered; they act to the best advantage in the inclined positions, semi-recumbent, kneeling or squatting. We know that the squatting position is the one naturally assumed if an effort is required to expel the contents of the pelvic viscera; we, moreover, all know how difficult, even impossible, it is for many to perform those functions recumbent in bed, and mainly because they have not sufficient control of the abdominal muscles in that position. Much more is this the case in the expulsion of the child. But the recumbent position

is sanctioned by custom; it is pointed out as apparently convenient; it is imperatively demanded by prudery, and by a false modesty which hides from view the patient's body beneath the bed-clothes; and, above all, it is dictated by modern laws of obstetrics, the justice of which I have never dared question; we have all been taught their correctness, and we all thoughtlessly follow their dictates. There is no reason for assuming this position, though we are taught it; it is not reason, or obstetric science, but obstetric *fashion* which guides—guides us through our patients; and blindly do we, like all fashion's votaries, follow in the wake."

We would like to dwell longer with Dr. Engelmann in this excellent chapter, so full of truth and practical sense, but we have already trespassed the limit of space assigned to us, and must hasten to a termination of this review.

In the third chapter, upon the third stage of labor, we are taught that although primitive peoples, like modern obstetricians, vary in the method of managing the third stage of labor, manual expression is almost universally resorted to; the *vis a tergo* is acknowledged, and the cord rarely serves the injurious purpose to which most modern midwives put it. Thus we are confronted by the fact that "the North American Indians and the African negroes, undoubtedly other tribes also, have for ages followed a practice so perfect that only within the last few years the most alert of our obstetricians are in position to compare with them; so that within the last decade, of this advanced age, constant scientific research has succeeded in placing us upon a level with our less favored brethren."

The two interesting chapters that follow, one on massage and expression and the other on characteristic labor scenes among the yellow, black and red races, complete the work, and lend additional interest and value to the whole production.

It is unnecessary to further recommend the work. What we have said already will inform the reader that Dr. Engelmann, through his labors among primitive peoples, has completely won our favor and sympathy. Yet, with all the praise we have bestowed upon the work, we must commingle a little

drop of critical admonition that we hope will not affect the general tenor of our review. Interesting as we find the book, it could be made much more palatable by devoting a little attention to the literary investure in future editions. On account of the large amount of material and its peculiar arrangement, much repetition in illustrative details is encountered by the reader; a few more siftings, however, will rid the work of the superfluous matter that now burdens it, and will raise the literary labor to the high level of the excellent sense contained in its pages.

The present edition is a decided improvement upon the first, and is certainly worthy of perusal by the most time-pressed practitioner. The simultaneous publication of a German edition, in Vienna, prepared by Professor Hening of Leipsic, sufficiently attests the appreciation of Dr. Engelmann's work abroad.

Therapeutic Handbook of the United States Pharmacopœia. Being a Condensed Statement of the Physiological and Toxic Action, Medicinal Value, Methods of Administration and Doses of the Drugs and Preparations in the latest edition of the United States Pharmacopœia (Apothecaries' and Metric System). With some remarks on unofficinal preparations. By Robert T. Edes, A. B., M. D. (Harvard), etc. New York: William Wood & Co., 1883. 8vo., pp. 397. New Orleans: Armand Hawkins. [Price $3.50.]

This work is intended by its author as a reference book for the busy practitioner, being as it were a compendium of the Pharmacopœia. Although not giving the mode of preparation of different remedies, its aim is to give the therapeutic action of drugs, their preparations and their doses. While not as voluminous as the United States Dispensatory, it contains all the information needed as a handbook of therapeutics, supplying what is lacking in the Pharmacopœia, *i. e.*, information for the physician as regards the physiological action of remedies and their doses.

In giving the *principles* of treatment rather than the applicability of drugs to individual diseases, we think the author has shown his good judgment. Individual cases require individu-

al treatment, and the physician himself, with his case before him should know what drug is best indicated in special forms of disease according to the requirements of the case and the condition of the patient at the time of its administration. No rule can be laid down for the treatment of any individual disease, and we think that the author's fears that he may be unfavorably criticised for following this line of teaching are without foundation. We should be disposed to severely criticise had he done otherwise.

As an addendum and compendium to the Pharmacopœia this book supplies a want, which not only the physician but the dispensing druggist, as well, will appreciate, and the author deserves the thanks of the profession for his new venture.

Appendices containing a classified list of drugs, and a list of poisions and their antidotes, form a valuable addition to the book.

On the whole, it is just what every physician needs, the more especially since the publication of the new Pharmacopœia, for the purpose of familiarizing himself with the action and doses of remedies.

Handbook of the Diagnosis and Treatment of Diseases of the Throat, Nose and Naso-Pharynx. By Carl Seiler, M. D., Lecturer on Laryngoscopy at the University of Pennsylvania, etc., etc. Second Edition, revised and enlarged. Philadelphia: Henry C. Lea's Son & Co., 1883. 12mo., pp. 295. New Orleans: Armand Hawkins. [Price $1.75.]

Prof. Seiler has greatly improved upon the first edition of this work, making quite a number of important changes, and adding much that is new. It admirably suits the wants of the practitioner as an instructor in the special branch to which it is devoted.

Chapters I and II enter into full descriptions of the laryngeal mirror and the art of laryngoscopy, the details of which are given in a manner fully explanatory of the method of conducting examinations. The chapters on diseases of the nasal cavities have been greatly enlarged, and many additions made. The work is entirely practical, the author seeking to teach the art of laryngoscopy and the treatment of diseases of

the throat and nose as thoroughly and concisely as is consistent with the size of the work, and there is nothing superfluous, and no page which does not contain points of information. There are seventy-seven illustrations admirably executed, all anatomical and pathological details being well delineated.

The last chapter of the book consists of a well-arranged tabulated form of the symptoms of the diseases of the pharynx and naso-pharynx, which the author informs us has been compiled from over five thousand cases, making a valuable addition to this meritorious work.

Perhaps exception might be taken to the author's description of "catching cold," not as being incorrect, but as being too prolix, he evidently forgetting that he is writing for the specialist, who is supposed to know, through his previous medical education, the physiology of that very frequent occurrence. The eight pages devoted to this subject contain much that every first course student should know. In fact, this chapter reminds us very forcibly of a lecture to a beginner in the study of physiology. However, this detracts nothing from the value of the work, and the author is to be congratulated upon the thorough and complete manner in which he has condensed so much valuable information in so small a space.

Lectures on Orthopedic Surgery and Diseases of the Joints. By Lewis A. Sayre, M. D., Professor of Orthopedic Surgery and Clinical Surgery in Bellevue Hospital Medical College, etc., etc. Second Edition, revised and greatly enlarged, with 324 illustrations. 8vo., pp. 569, cloth. New York: D. Appleton & Co., 1883. New Orleans: Armand Hawkins. [Price $5.00.]

That Prof. Sayre has done much to advance the science of orthopedic surgery is beyond doubt. When, however, he gives a book to the profession, it appears to us that he should aim to instruct only, and not attempt to draw unto himself that admiration from his brethren which he would undoubtedly command were he a more modest writer. There is much in the book that is valuable, but more which could have been omitted with credit to the author, and without detracting

from the work, which is intended "to enable the busy practioner to give relief to his patients in the class of cases therein described."

In Chapter VI we find an instance of the author's evident desire of *producing an effect* upon his hearers, by a long useless description of a case which occupies two pages when it might have been better told in so many paragraphs. The sort of drivel on page 54, about a child's "peepee" hurting him, may do very well for a class of medical students, but when it comes to printing his lectures in a book for the profession, the author might at least, in revising the first edition, have omitted this or used more dignified language. This is only one instance of the number of like pages which we notice.

On page 61 we find a long "testimonial," which reminds us forcibly of the patent medicine or quack advertisements, such as flood the secular press, *e. g.*, * * * "We brought him to you, and you pronounced it hip-disease; at the same time you advised and performed an operation for phimosis. Immediate benefit was received from this, and at the present time you can scarcely find a less nervous or more even-tempered child than my own. "Sincerely yours, etc."

There are many such letters of which the above is an extract, particularly the one on page 483.

Now all this would do very well were Prof. Sayre seeking to advertise himself to the laity in his specialty. But, when it comes to writing a work upon orthopedic surgery, which is to go forth to men of intelligence, to whom the author is known through his good work in raising this branch of surgery to the position it occupies to-day, he should have remembered to whom his book is addressed, and eliminated all this clap-trap and nonsense in his revision. It appears to us that it would have been much better to have given, in a few clear lines, the result of cases operated upon, in his own language, than to fill the book with long letters from parents telling, in marvelous manner, what a great man is Dr. Sayre.

As a contrast to the foregoing we could cite many instances of the good judgment and admirable teaching of Dr. Sayre, especially in regard to the performance of tenotomy in de-

formities (page 35), the chapters on hip-joint disease, and the minute and instructive description of the plaster of paris jacket, and the method of its application.

Many of the chapters have been re-written, and are an improvement on the first edition. There are many good illustrations, but also many which might be improved upon.

All points connected with orthopedic surgery are fully discussed, and those in search of information in regard to this special branch of surgery will be able to glean much, if they will have the patience to separate the wheat from the chaff.

Illustrated Medicine and Surgery. Quarterly. Edited by George Henry Fox and Frederic R. Sturgis. Vol. II, No. 2. New York: E. B. Treat.

This journal, with its rare and interesting cases, comes to us containing in the present number seven articles, with fifteen beautifully executed illustrations. We can only repeat all that we have heretofore said in regard to the excellence of this periodical and its value to the physician and surgeon. The contributors to this number are men of national reputation, and the subjects are handled in a clear and instructive manner.

This new feature in medical journalism, we are glad to note, is meeting with the encouragement it deserves, for it is strictly a first-class journal, presenting in the best possible manner clinical cases which the profession rarely meets with in other publications. Without being invidious we may mention the following subjects treated of in the number before us:

Intellectual Monomania with Mental Depression, by Wm. A. Hammond, M. D.; Trichophytosis Barbae, by H. G. Piffard, M. D.; Plastic Operations for Deformity of the Lower Eyelid, by T. T. Sabine, M. D.

Four other equally valuable contributions complete the matter in this number.

It is to be hoped that the profession will give its liberal support to this undertaking, which the editors spare no pains or expense to place at the head of medical literature, for it is a work much needed and full of practical information.

Current Medical Literature.

The Therapeutical Drinking of Hot Water, Its Origin and Use.—The therapeutical drinking of water, at a temperature of blood heat to 150° Fahr., having become popular enough to call for an allusion to it in the London *Lancet* as a "valuable American contribution to medicine," and since it seems to be used at random from the directions of its distinguished introducer, I have thought that the origin and proper use of hot water should become history.

The practice dates back to 1858, when Dr. James H. Salisbury, of this city, concluded a series of experiments on feeding animals, to ascertain the relation of food as a cause and cure of disease.

Among other things he found that the fermentation of food and the products of these fermentations were the chief primary factors in producing the diseases which arise from unhealthy alimentation. With the idea of removing these diseases by removing their causes, he employed hot water, in order to wash out the acetic, butyric, hydro-sulphuric, lactic and saccharic acid and sulphide of ammonium fermentation vegetations—yeasts—from the stomach and intestines.

At first he tried cold water on his men to remove these products of fermentation. But cold water caused distress, pain and colic. So he increased the temperature of the water. Lukewarm water made them sick at the stomach, and excited peristalsis upward. The temperature of the water was increased to 110° and up to 150° F. This was well borne, and afforded a feeling of agreeable relief which thousands since testify to. The hot water excites normal downward peristalsis of the alimentary canal, washes down the slime, yeast and bile through its normal channels—washes out the liver and kidneys, and the bile is eliminated through the bowels and not through the blood, via the kidneys.

It was some time before the proper times of administration and proper number of ounces of hot water, and the proper number of ounces to be drunk at meals could be settled, in order to obtain the best results. These directions may be found published in connection with the Salisbury plans for the treatment of consumption, Bright's disease, diabetes, fibroids, sclerosis and colloid diseases.

At the risk of repetition, for the sake of a more thorough understanding of the subject, these details will be plainly and simply given.

DIRECTIONS FOR USING HOT WATER ACCORDING TO THE SALISBURY PLANS.

1. *The water must be hot; not cold or lukewarm.*—This is to excite downward peristalsis of the aliamentary canal. Cold water depresses, as it uses animal heat to bring it up to the temperature of the economy, and there is a loss of nerve force in this proceeding.

Lukewarm water excites upward peristalsis or vomiting, as is well known. By hot water is meant a temperature of 110° to 150° F., such as is commonly liked in the use of tea and coffee. In cases of diarrhœa the hotter the better. In cases of hemorrhages the temperature should be at a blood heat. Ice-water is disallowed in all cases, sick or well.

2. *Quantity of hot water at a draught.*—Dr. Salisbury first began with one half pint of hot water, but he found it was not enough to wash out nor to bear another test founded on the physiological fact that the urine of a healthy babe suckling a healthy mother (the best standard of health) stands at a specific gravity varying from 1015 to 1020. The urine of the patient should be made to conform to this standard, and the daily use of the urinometer tells whether the patient drinks enough or too much hot water. For example, if the specific gravity of the urine stands at 1030, more hot water should be drunk, unless there is a loss by sweating. On the other hand, should the specific gravity fall to 1010, less hot water should be drunk. The quantity of hot water varies usually from one half to one pint or one and a half pints at one time drinking.

The urine to be tested should be "the urina sanguinis" or that voided just after rising from bed in the morning before any meals or drinks are taken.

The quantity of urine voided in twenty-four hours should measure from forty-eight to sixty-four ounces. The amount will, of course, vary somewhat with the temperature of the atmosphere, exercise, sweating, etc., but the hot water must be given so as to keep the specific gravity to the infant's standard, to-wit, 1015 to 1020. The urinometer will detect at once whether the proper amount of hot water has been drunk, no matter whether the patient is present or absent. Another test is that of odor. The urine should be devoid of the rank "urinus" smell, so well known but indescribable.

The Salisbury plans aim for this in all cases, and when the patients are true and faithful the aim is realized.

3. *Times of taking hot water.*—One hour to two hours before each meal, and half an hour before retiring to bed.

At first Dr. Salisbury tried the time of one hour before meals, but this was apt to be followed by vomiting. One hour to two hours allows the hot water time enough to get out of the stomach before the food enters or sleep comes, and thus avoids vomiting. Four times a day gives an amount of hot water sufficient to bring the urine to the right specific gravity, quan-

tity, color, odor and freedom from deposit on cooling. If the patient leaves out one dose of hot water during an astronomical day, the omission will show in the increased specific gravity as indicated by the urinometer, in the color, etc. Should the patient be thirsty between meals, eight ounces of hot water can be taken any time between two hours after a meal, and one hour before the next meal. This is to avoid diluting the food in the stomach with water.

4. *Mode of taking the hot water.*—In drinking the hot water it should be sipped and not drunk so fast as to distend the stomach and make it feel uncomfortable. From fifteen to twenty minutes may be consumed during the drinking of the hot water.

5. *The length of time to continue the use of hot water.*—Six (6) months is generally required to wash out the liver and intestines thoroughly.

As it promotes health the procedure can be practiced by well people throughout life, and the benefits of "cleanliness inside" be enjoyed. The drag and friction on human existence, from the effects of fermentation, foulness, and indigestible food, when removed, gives life a wonderful elasticity and buoyancy somewhat like that of the babe above alluded to.

6. *Additions to hot water.*—To make it palatable, in case it is desired, and medicate the hot water, aromatic spirits of ammonia, clover tea blossoms, ginger, lemon juice, sage, salt and sulphate of magnesia are sometimes added. Where there is intense thirst and dryness, a pinch of chloride of calcium or nitrate of potash may be added to allay thirst and leave a moistened film over the parched and dry mucous membrane surfaces. When there is diarrhœa, cinnamon, ginger and pepper may be boiled in the water, and the quantity drunk lessened. For constipation a teaspoonful of sulphate of magnesia or one-half teaspoonful of taraxacum may be used in the hot water.

7. *Amount of liquid to be drunk at a meal.*—Not more than eight ounces. This is in order to not dilute the gastric juice or wash it out prematurely, and thus interfere with the digestive processes.

8. *The effects of drinking of hot water, as indicated, are* the improved feelings of the patient. The fæces become black with bile washed down its normal channel. This blackness of fæces lasts for more than six months, but the intolerable fetid odor of ordinary fæces is abated and the smell approximates the odor of healthy infants suckling healthy breasts, and this shows that the ordinary nuisance of fetid fæces is due to a want of washing out and cleansing the alimentary canal from its fermenting contents. The urine is clear as champagne, free from deposit on cooling or odor, 1015 to 1020 specific gravity, like infant's urine. The sweat starts freely after drinking, giving a true bath from centre of body to periphery. The skin becomes healthy in feel and looks. The di-

gestion is correspondingly improved, and with this improvement comes a better working of the machine. All thirst and dry mucous membranes disappear in a few days, and a moist condition of the mucous membrane and skin takes place. Ice-water in hot weather is not craved for, and those who have drunk ice-water freely are cured of the propensity. Inebriety has a strong foe in this use of hot water.

9. *Summary of general considerations on the therapeutical drinking of hot water.*

(*a*) Foundation of all treatment of chronic diseases.

(*b*) Excites downward peristalsis.

(*c*) Relieves spasm or colic of the bowels by applying the relaxing influence of heat inside the alimentary canal, just as heat applied outside the abdomen, relieves.

(*d*) Dilutes the ropy secretions of the whole body, and renders them less adhesive, sticky and tenacious.

(*e*) Inside bath.

(*f*) Dissolves the abnormal crystalline substances that may be in the blood and urine.

(*g*) Necessary to have the hot water out of the stomach before meals.

(*h*) Use is to wash down the bile, slime, yeast and waste, and have the stomach fresh and clean for eating.

(*i*) Promotes elimination everywhere.

(*j*) If objection is made, it must be remembered that we are 75 per cent water.

(*k*) The gas that sometimes eructates after drinking hot water, is not produced by the hot water, but was present before, and the contractions of peristalsis ejects it, or sometimes it is that the air is swallowed in sipping as horses suck air. The amount of gas contained in the alimentary canal is larger than most are aware of, and yet it is not excessive, as it takes some time to eruct a gallon of gas from the stomach. This length of time can be tested by submerging a gallon jug filled with air under water, and observing how long it will be in filling with water.

(*l*) Some physicians have advised against hot water, on the ground that it would "burn the coating of the stomach." If this is so, then a denudation of the lining of the stomach continuously for twenty-four years is compatible to a state of otherwise perfect health with no sign of illness for that period of time, and is also compatible with the numerous cases that have occurred under the use of hot water as a foundation for treatment during the past twenty-five years. Again the same physicians drink tea and coffee at the same temperature, and this act belies their warning and shows their inconsistency and want of consideration before speaking.

(*m*) These dicta about the therapeutic drinking of hot water were founded on the physiological experiments at the outset, verified in pathology and based on the experience derived

from the treatment of thousands of cases since 1858. They are open, so that all who will may partake of this "water of life freely."

10. *Personal estimate of the founder of this practice.*—"If I were confined to one means of medication I would take hot water." "I have drunk it for twenty-five years."

Corroboration of the writer.—The writer testifies that his own personal experience and observation corroborates the truth of these statements of the Salisbury plans.—*Ephraim Cutter, M. D., in Gaillard's Journal.*

Spina's Studies on Tuberculosis.—From the laboratory of Prof. Stricker appears a brochure of one hundred and twenty-eight pages, which cannot fail to find a welcome place in every medical library, and which will prove of great interest, whether one is convinced in full or only in part by Dr. Spina's argument.

The introductory explains that the interest which was awakened by the thesis of Koch induced the author to prove the latter's experiments, and that the Vienna results are greatly at variance with those of the Berlin savant. With the peculiar exclusiveness of our Teuton colleagues, Dr. Spina says that the interest was "especially among the German doctors."

Part I, of twenty-three pages, contains an exhaustive *résumé* of the studies of tuberculosis and the theories which have been held concerning it, from the time of its first recognition by Sylvius, in 1680, to the status before the thesis of Koch. It defines the origin of the terms applied in connection with the disease, and the confusion which has arisen by the varied use of the terms scrofulous, cheesy, etc. The author courteously recognizes the historical sketch of Waldenburg, which aided him in the first part of his work, but his own review is so complete that it is equivalent to new. He concludes from the entire reports that anatomists and histologists have yet to determine, not only in regard to the contagiousness of tuberculosis, but also in regard to the differential diagnosis in their experiments on animals; also that the microscope had taught us the structure of miliary tubercles, a cellular structure, and an intercellular net-work, with frequently, if not always, giant cells, but that the microscope had not taught any specific sign of true tubercle; one must, however, have the three elements of structure and take into consideration the retrogessive metamorphosis in order to make the histological diagnosis of tubercle.

Part II follows with the results obtained by inoculation, beginning with the negative experiment of Kortum in 1789, who inoculated scrofulous pus in a boy; and this section includes researches either with tuberculous matter or with foreign

bodies. Dr. Spina seems to have overlooked many of the valuable papers of Toussaint. In the review of these reports the author cannot find that any one has shown cases which have become infected by cohabitation, and he shows that all autopsies demonstrate lesions which are progressive from a point of original irritation.

Part III recalls the experiments which have recently been made in regard to the inhalation of tuberculous material, and of foreign matter, which have produced nodes in the lungs. These reports, like those of inoculation, determine nothing essential. Some are positive and some negative. Dr. Spina demands that a closer examination be made of the air inspired, and that account be taken of the relative chemical components, and of the organic substances contained in it. He shows conclusively, however, that pulverized foreign bodies can give rise to node-formation in the lungs.

Part IV reviews the reports of feeding with tuberculous products. From these the author concludes that the assertion that the "consumption of meat or milk of phthisical cows can cause tuberculosis in man" demands more positive proof, and that sufficient control experiments have not accompanied the others.

Part V is a sketch of the history of inoculation and inhalation experiments with tuberculous matter, resulting in Klebs maintaining the regular appearance of his "Monas tuberculosum," Aufrecht and Baumgarten claiming the presence of rod bacteria, and Aufrecht finding also cocci, which Baumgarten denies.

At this point appeared the thesis of Robert Koch, which will bear repetition in full for the better appreciation of Dr. Spina's work, and which runs as follows:

1. In the tuberculous organs of man are found rod-like structures, which are characterized by specific chemical and morphological peculiarities from all other yet known parasites. These Koch calls "tubercle bacilli."

2. The tubercle bacilli are constantly found in tubercles, frequently in the sputa of tuberculous subjects.

3. The tubercle bacilli from the tuberculous organs can be cultivated in coagulated and sterilized jelly.

4. When animals are inoculated with the purely cultivated parasites they become tuberculous.

5. In the inoculation tubercles the parasites are constantly found.

6. From the inoculation tubercle equally pure cultivations can be made.

7. The re-cultivated bacilli are again inoculable.

8. The tubercle bacilli grow only at the normal animal temperature. They are true parasites of the animal and human organism.

9. All control experiments were *without* tubercle formation.

10. The tubercle bacilli appear regularlay also in cheesy bronchitis and pneumonia, sometimes in scrofulous glands and fungous joint inflammations; further in the "pearls" and bronchiectasia of the lungs of cattle and in the tuberculous organs of monkeys and fowls. As the bacilli are not constantly found in scrofulous glands and in fungous joints, only certain forms of these diseases are to be grouped with tuberculosis.

Part VI begins with the author's own work and analyzes Koch's arguments separately.

First argument.—"The tubercle bacilli react with aniline in a characteristic way."

Dr. Spina finds that *he* can color the bacilli, as well as normal or pathological tissue, with the aniline in either *acid*, *alkaline* or *simple water* solutions, and that he can find in them no peculiar susceptibility which differs from other matter.

In support of this he gives minutely the notes of sixteen experiments. Often one coloring method was first used, and then, after washing out, another.

Second argument.—"Bacteria which are not directly concerned in tuberculosis react with the coloring matter differently from the tubercle bacilli."

Dr. Spina colored putrefaction bacteria exactly as tubercle bacilli are colored, for which he gives his experiments No. 16 to No. 21.

Third argument.—"The tubercle bacilli are characterized as formations *sui generis*, by certain external signs,—viz: rod-like, slender, one-fourth to one-half as long as the diameter of a red blood disk, generally five times as long as thick. In tuberculous organs they form compact groups; never any spontaneous, only 'molecular movements,'" etc.

Dr. Spina calls attention to the experiments of Nägelli, which showed that bacteria can alter their form and character with the change of the nutriment in which they may be developed.

Reports No. 22 to No. 30 show that Dr. Spina finds variable proportions and sizes of the bacilli, which may present a length of only two or three times the diameter. He also finds bacilli similar in every particular in croupous pneumonia, bronchiectasia, and in the tissue around a seton in a frog's leg. He further questions whether the absence of water in the serum jelly is not the cause of the formation in compact groups, as appears from experiment No. 30. The author here notes that the bacillus of glanders recently advanced by Loeffler and Schuetz does not differ in any way from the bacillus of Koch.

Fourth argument.—"The tubercle bacilli are constantly found in the tuberculous organs of man. Reports No. 31 to No. 54 are divided into four rows and cover a large number of cases:

a. Chronic lung tuberculosis.

b. Sputa from phthisical patients.
c. Sputa from non-phthisical cases.
d. Tubercle of serous membranes.

In a great number of these cases Dr. Spina could not find any bacilli, especially in class *d*, and he adds Kowalski's researches, which substantiate his own in every particular. Special attention is called to the absence of bacilli in the tubercles of the omentum.

"The tubercle bacilli increase only at a temperature near that of the animal body."

The experiments in the Vienna laboratory show that this is true only of cultures in the Koch jelly, and that by the employment of other fluids the bacteria can be developed at temperatures between 30° C. and 100° C. By the addition of water to the Koch jelly, a considerable deviation of temperature will still permit the increase of the bacillus.

Conclusion.—This can briefly be resumed in the following:

Inoculating animals with tuberculous material produces a form of nodular growth in the tissues. Indifferent substances, inoculated, cause the same nodes.

The bacillus of Koch has no peculiar property which others have not. Several forms of bacteria are found in tuberculous masses. It is not proved that the bacilli in the sputa come from the lungs; they can as readily come from the atmosphere.

Tubercles of the peritoneum which are not exposed to the air contain no bacilli.

It is not proved that tuberculosis is not contagious.—*S. R. Huidekoper, M. D., in Philadelphia Medical Times.*

Milk in the Breasts of Non-pregnant Women.—Dr. Monin (*Le Mèdecin Practicien*, No. 21) discusses the question, "Can a woman have milk in her breasts without having a child?" To quote from his paper: "The mammary secretion is a phenomenon of the reflex order. In normal conditions the presence of the fœtus in the womb and the suction of the child upon the nipple are the physiological excitants of this function. Yet, aside from the puerperal state excitations very diverse in their nature may bring about this result. The presence of milk in the breasts, does not, therefore, indicate absolutely an existing pregnancy, nor is it proof positive of an anterior pregnancy. That this point may have some medico-legal importance, is evident.

The lacteal secretion may show itself at any period of life. It is sometimes found in infants, which fact was known as far back as the time of Morgagni, who makes mention of it in his "Adversaria Anatomica." When the secretion appears in infants, it is usually about the second or third day, and it may continue for a month (Depaul). The chemical constitution of

this milk is different from the ordinary human milk, and it is so irritating that it is apt to give rise to suppurative inflammation of the gland, especially when the vicious practice pursued by some midwives is indulged in, *i. e.*, pressing the breasts in order to extract the milk.

At puberty the mammary gland, in both sexes, becomes the seat of a kind of physiological orgasm which may bring about a lactiform secretion. There are few precise observations of this condition, although the records of medicine contains many cases.

In adult females, the menstrual functions stands in peculiar relationship with the mammary apparatus, as was known to Hippocrates and Avicenna. The physicians of the last century also knew this connection, since Véga is said to have quoted the Hippocratic aphorism in defense of a young girl accused by reason of a flow of milk from her breasts, of having lost her virginity.

Tumors of the breast may give rise to the lacteal secretion. The writer has seen this in a carcinomatous breast, removed by M. Terrier. It is probable that the explanation of this phenomenon lies in the extreme activity of the glandular epithelium produced by the neo-plastic proliferation. Tumors of the uterus and its appendages (myomata, cyst, etc.), may by sympathy arouse the mammary secretion.

Excitation of the nipple is a powerful influence in provoking the secretion of milk, and there are numerous cases on record where a perfectly chaste girl, by applying an infant to the breast has arroused the action of the gland to such an extent as to give full nourishment to the child. (Baudelocque, Richer, Chaussier, Bouchut, etc.)

M. Luc, in 1879, related a very curious case of galactorrhœa, occurring in the service of Auguste Ollivier. It was that of a woman who had never been pregnant, but who had lived for a year with a lover whose principal delight was to excite her breasts with his tongue.

The imagination and certain emotions act strongly upon the mammary secretion. Diemerbrock cites a case where an old woman, filled with the desire to rescue from starvation an infant whose mother had died, applied it to her breast, and after several trials, milk came in sufficient quantity.

The Dictionary, in 60 volumes, contains the account of a young woman whose breasts overflowed with milk at the moment she abandoned herself to the tender advances of a fond husband.

In "spurious pregnancy" the lacteal secretion is sometimes present. A curious instance of this sort is related by Dr. Ribemont.

After the menopause the mammary gland becomes atrophied and passes into the state in which it was before puberty. Still the organ may sometimes be aroused to action by such causes as have been mentioned.

In the adult male, irritation of the nipple may bring about a secretion of milk sufficient to nourish an infant. Humboldt describes the case of a certain Lozano, who, in order to quiet his infant, took it into bed with him and put it to his breast. The irritation of the nipple by the suckling of the child caused a secretion of milk which was thick and very sweet. For five months the father nursed the child several times a day and in this time the infant had no other nourishment. Similar cases are recorded by James, Villeneuve, Horteloup, and recently by Ed. Labbé.

The mamma has been observed to become hypertrophied following atrophy of the testicle (Lereboullet, Rendu, Gubler). This condition of the breast has been witnessed in orchitis with atrophy. Cancer of the testicle and onanism may produce a like result.—*Cin. Lancet and Clinic.*

Diagnosis of Urogenital Tuberculosis by Inoculation into the Anterior Chamber of the Eye.—Some time before Koch's discovery of the baccillus tuberculosis, Damsch sought to make use of the inoculable properties of terbercular material in the diagnosis of doubtful cases of disease of the genito-urinary apparatus. Pursuing this line of investigation he made thirteen injections into the anterior chamber of the eye of the rabbit, using for this purpose, with every precaution preserved, the purulent sediment of seven clinically well-characterized cases of urogenital tuberculosis, in part of which the diagnosis was confirmed by autopsies. *In every case* there was developed in the course of three or four weeks tuberculosis of the iris. Control-experiments were made with purulent urine from non-tubercular cases of bladder disease in three instances, and in *none* was tuberculosis of the iris propuced.

Subsequently, as already noted in these columns, Rosenstein discovered the bacillus tuberculosis in the sediment of urine from a case of urogenital tuberculosis. Whether or not it is the bacillus which is the infecting agent in these cases, the fact, if such it be, is of the extremest practical importance. For it is well known that we possess no other means of determining certainly the presence of urogenital tuberculosis, and this mode is exceedingly easy of application.

Recently (*Deut. med. Wochenschr.*, April 25th), Damsch has again made use of this inoculation method in the diagnosis of doubtful cases of urogenital disease in four cases, with the result of apparently confirming his original conclusions. In each the inoculations were made at the time when the symptoms of the disease were confined to suppurative cystitis. In two cases, iris tuberculosis was developed in three weeks, and both patients whence the pus was derived developed general tuber-

culosis, evinced in one case by distinct renal tumor and pulmonary phthisis, and in the other by laryngeal and pulmonary phthisis. In the two remaining cases, the inoculation, though frequently repeated, was without result, the pus disappearing from the anterior chamber in a few days. One of the patients whence the pus was derived recovered from the intense hemorrhagic cystitis with which he was afflicted, in a few weeks, but the second disappeared from observation before recovery.

Damsch also inserted, without effect, into the anterior chamber, large numbers of non-tubercular substances, including uric acid and sodium phosphate suspended in water, gonorrhœal pus in 6 per cent. solution of chloride of sodium, furunculous pus, non-tubercular peritoneal exudate, lepra products, etc. Similarly abortive were attempts to inoculate the cornea and conjunctiva by numerous injections into them of uric acid in suspension, xanthin, guanin, kreatin, Kreatinin and hippuric acid, alone and in combination with pus.

These results are exceedingly important, and in view of the ease with which they can be practiced should be early repeated and the true value of such diagnosis inoculations ascertained. —*Medical News.*

Vaccination during Pregnancy: Its Effect on the Fœtus.—A recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains a laborious article by Dr. Carl Behm, of Berlin, on the above subject. The question whether the blood changes wrought by vaccinia germs affect the fœtus in utero as well as the mother has been a good deal discussed on merely theoretical grounds. Bollinger formulated the doctrine that the placenta formed a kind of physiological filter by which corpuscular matters in the maternal blood were held back, and prevented from contaminating the fœtus. But since then Spitz and Albrecht have detected the spirillum of relapsing fever in the blood of the new-born infant—an observation which appears to refute the dogma of Bollinger. He has, consequently, since retracted the proposition; and, believing it possible for blood-poisons, whether corpuscular or not, to pass from the mother to the fœtus, he has stated that when a pregnant woman is successfully vaccinated the fœtus participates in the infection, and, it of course follows, in the protection conferred thereby. The same view has been taught by Curschmann. These conclusions are supported by certain published cases in which the vaccination of children, whose mothers had been vaccinated during pregnancy, was effected without result. Isolated cases, however, prove nothing, for the failures may have been due for instance, to bad lymph, or to unskilful performance of the operation. The most numerous observations are those of Burckhardt, who vaccinated twenty-eight pregnant women; but, of their children, in only eight was the inoculation suc-

cessful. This series, however, was not tested, as it should have been, by the vaccination, with precisely the same kind of lymph and in the same manner, of children whose mothers had not been vaccinated during pregnancy. Opposed to these are the observations of Gast, who vaccinated 16 mothers during pregnancy, and subsequently every one of their children, with success. This divergence in the results of experience led Dr. Behm to investigate the matter. He vaccinated 47 pregnant women, but was not able to get at the children of 33. Of these 33 mothers, 22 were vaccinated in the tenth lunar month of pregnancy, 10 in the ninth, and one in the eighth. In 4 the vaccination was ineffectual, in 3 of them the non-success being proved to be due to the lymph employed. In the remaining 20 pregnant women successfully vaccinated, in 7 the vesicles were not good, but in 22 the inoculation produced perfect and typical vaccine vessels. Of the 33 children, 25 were vaccinated successfully, 8 unsuccessfully. Of these failures, 6 were (by test vaccinations on other children) shown to be due to bad lymph. In 1 of the other two the lymph used, although it produced vesicles in other children, did not produce good ones. In the remaining case the lymph employed was good and potent. But in this case, Dr. Behm remarks, ought to be tested by repeated inoculations before concluding that the non-success was due to protection acquired in utero from the vaccination of the mother. The children of the four mothers in whom vaccination had failed were vaccinated with perfect success. Of the remaining 21, in 15 perfect vesicles were the result; in 6 the vesicles were slightly modified, being few in number or small, but all ran a typical course. Dr. Behm therefore concludes that vaccination of the mother during pregnancy has little, if any, influence on the fœtus; but it is possible that it may sometimes protect the fœtus. He concludes with an argument for the re-vaccination of pregnant women, and the vaccination of infants as early as possible.—*Medical Times and Gazette—North Carolina Medical Journal.*

Another New Disease.—Professor Westphal recently showed to the Berlin Medical Society, two patients suffering from a very unique affection, which he christened at the time, and very appropriately, with the name of "Thomsen's Disease." Dr. Thomsen, a general practitioner in Schleswig, first described the trouble in 1876, having himself been a victim to it all his life. Since his description was published only eight similar cases have been reported, and so far the disease appears not to have been observed in France, England, or America.

The prominent symptom is the following: When the patient under certain circumstances attempts voluntary movements,

the muscles undergo tonic contraction, and the movement is stopped or hindered. Thus, after long sitting or standing, if the person tries to move, he finds his muscles so stiff that it is at first impossible to stir. The same thing follows after rapid and powerful muscular movements. The unfortunate patient, in trying to run or dance, is suddenly overcome with muscular stiffness. If he throws a stone, the extended arm remains rigid. Sudden irritations, either physical or mental, also bring on the spasm. If, while walking along, the foot strikes a stone, the leg becomes rigid and the patient may fall down. In some of the cases simply concentrating the mind upon the trouble would bring on some evidences of it.

The spinal nerves are most affected, but the innervation of the face, and even of the ocular muscles, is partially interfered with. The smooth muscles are not disturbed. The muscles undergo an increase in volume, though not in proportionate strength. Their electrical reactions are unaffected. Microscopic examination of the fibres shows nothing abnormal. The reflexes are normal. Sensibility is undisturbed and the contractions and stiffness do not cause pain.

The cause of the disease is not known, but it has a curious hereditary tendency. In fact most of the cases have occurred in Dr. Thomsen's family, where it has been traced through four generations. Dr. Thomsen was inclined to think that the trouble had a physical basis, but Westphal believes it to be anomaly of the muscular tonus. Treatment accomplishes little or nothing. The disease is a pathological curiosity and a highly interesting one.—*N. Y. Medical Record.*

The True Relations of Uterine Disease to Sterility.—At the conclusion of the Gulstonian Lectures on the Sterility of Women, Dr. Matthews Duncan, makes the following observations with regard to the importance attributed by different authorities to dysmenorrhœa, uterine catarrh, "ulceration" and flexions:

To me it appears theoretically reasonable to connect dysmenorrhœa and sterility with rigidity of the cervix, and the opinion that it is so is confirmed by its being actually discovered in most cases. Anyone familiar with the use of increasingly sized bougies in dilating the cervix must recognize the greater force required in dysmenhorrhœal than in healthy women, and the increase of painfulness of the process as the force used, slight though it is, increases. The overcoming of this rigidty by temporary dilatation, not the overcoming of a mechanical obstruction, seems to to me in some mysterious way to exert a generally beneficial influence on that part of the pro-

cess of fecundation in which the uterus is implicated during insemination. For it may be held as almost certain that, during the natural sexual orgasm in coitus, the internal ends of the tubes, which we almost never see but as absolutely closed passages, are temporarily opened inside, and that the same happens to the cervix: and while it is probable that such wide opening of the cervex is not essential for fecundation, it must be held as facilitating it or rendering it more probable. Besides, this opening is an indication that the whole nervous arrangements as well as the physical organs are co-operating to produce the object in view. The opening here pointed out has, in its natural or healthy performance, and in the obstacle from rigidity, close analogy with similar processes going on during the premonitory and first stages of labor; and the dysmenorrhœal pains have analogy in the irregular painful and useless contractions and pains of these stages of labor, and of the hours immediately following delivery.

No other disease—local, or presumably local—has such importance in the theory of sterility as spasmodic dysmenorrhœa. This great place is established by the frequent association of the two conditions, and by the probable connection of the dysmenorrhœa neurosis with profluvium seminis, with disorder of sexual desire and pleasure, and with other derangements of the sexual orgasm of coitus. But dysmenorrhœa has its place confirmed in a unique way, for its cure is universally admitted to be a distinct and direct step towards the cure of sterility, and this can be said of no other local condition.

During recent times, no disease has more engaged the attention of gynæcologists than the catarrh and peculiar changes of the cervix uteri connected with it, known generally by the name of ulceration of the neck of the womb. To it, even when in a very slight form, has been ascribed a very great pathological importance, and the Croonian Lectures of West seem to have had less effect in bringing the profession to a just judgment of its comparative insignificance than the overshadowing influence of some other temporary novelty. Among other evils which this very prevalent disease has been alleged to produce is sterility; but there is not a title of evidence that it has any special influence in preventing conception; and we have, for guidance as to this matter, our best help in the fact that conception and natural pregnancy are extremely common during its continuance. Among twenty-six cases observed by Grünewaldt, with a view to the study of the changes of the cervix uteri in the first month of pregnancy, he found only eleven with a quite healthy state of the cervical mucous membrane. Six had papillary and nine catarrhal ulceration, which no doubt existed before conception.

Almost identical statements may be truly made regarding versions and flexions, and I do not repeat them. But in this department of gynæcology increase of knowledge not only

tends to diminish importance, but to show that the great mass of versions and flexions are conditions of simple health.

The importance of those diseases which prevent the commencement of uterine pregnancy, or render such commencement improbable or difficult, needs only to be mentioned. To Grünewaldt we owe a careful statement of the extent and potency of this class of diseases, and for them he, as already said, vindicates a morbid superiority over those conditions which prevent conception.

The diseases and disorders of the genital organs, whether they act in preventing conception, in preventing uterine pregnancy, or in interfering with its natural healthy progress, are operative in individual cases, and demand the most careful study of the practical physician, for it is chiefly through his power over them that he can hope to cure sterility. That in the early stage of the study of these diseases their influence should be exaggerated is natural. At all times there can be no doubt their study and treatment will be most important, not only on their own account, but with a view to the improvement of the general health. In the case of those local diseases which may be proved to have no special influence in diminishing fertility, their removal, by increasing the general health, will help towards a removal of sterility.—*British Medical Journal.*

A Spina Bifida Presentation.—Mr. Charles Penruddock, M. R. C. S., of Winchcombe, writes:

On April 15th, 1883, I was called by the midwife to attend Mrs. B., who was in labor with her fourth child. Labor commenced at 2 P. M. on the previous day, the pains had been very severe until 10 P. M., but after that time became few and far between, and of very little force. When I saw Mrs. B., the pains appeared to be moderately strong but of short duration. There had been nothing abnormal in her previous confinements. On making an examination, it was with great difficulty that I could reach the os, which I found nearly fully dilated; its margins were rather flaccid, and during a "pain" the presenting portion of the child exerted no pressure on them whatever.

From what I could feel of the presentation, I at first thought I had a face to deal with, there being something which very closely resembled the well defined margins of the orbits, beyond this I thought I felt the nose, and still, a little further on, my fingers slipped into what I at once took to be a mouth, only it was somewhat jagged inside as though it were lined with fully developed teeth; I then came across a hand. I passed my hand into the vagina to make a more thorough examination, satisfied myself it was not the face, and at the same time could feel the unmistakable smooth outline of a child's hip, but owing to the irregularities, I was unable to tell

clearly what the arrangement of parts could be, and decided to call in my friend and colleague, Mr. William Cox. We came to the conclusion that it was no face, but the lumbar region that presented, and therefore decided to turn. This was accomplished in the usual way, and the feet brougt down, only slight difficulty being experienced until the head was being delivered, but with my left forefinger in the child's mouth, and my right hand in its occiput, this was soon overcome. The placenta soon followed, and the mother made a good and rapid recovery. The child, a female, appeared to have been dead about twelve hours, was fully developed. The head was somewhat hydrocephalic. On further examining the body, we found the cause of our not being able to clearly diagnose the presentation to be a large spina bifida, situated in the middle of the lumbar region, and very much resembling to the touch the part for which I had at first mistaken. This case struck me as being very interesting in showing how a diseased condition of a fœtus may confound the diagnosis of the accoucheur. —*British Medical Journal.*

An Inquiry into the Causes of the Increase of Cancer.—By Hugh P. Dunn. F. R. C. S. At the end of a long and elaborate thesis on this question, Mr. Dunn concludes. "1.—That, in the face of incontrovertible facts, cancer is increasing in England. 2.—That this increase is due (*a*) To the success attending the legislative measure and other means for the preservation of the infant population, by which a large proportion of persons reach adult age, and the general healthiness of the community is increased. (*b*) To the greater prominence which, in the present day, prevails, of the most predisposing causes of the disease—such as the fecundity of women, the prevalence of high nervous tension, the existence of possibly greater luxury in the mode of living. 3.—That the immunity apparently demonstated by the records as present in certain counties of England and Wales, is presumably, as we have attempted to show, not due to any real declination of the disease, but rather to such causes as can be explained by special local predisposition to other diseases, to which a large proportion of the adult population succumb. 4.—That in consequence of this, if each district of England and Wales were equally healthy, each would probably exhibit a high cancer mortality. 5.—That the geographical area of which England and Wales is composed, is insufficient to account directly for interruption in the distribution of cancer as met with in this Island."—*British Medical Journal.*

Glycosuria Following Abscesses of the Mamary Gland During Lactation.—Glycosuria may occur,

according to some authors, whenever the lacteal secretion is suddenly suppressed in the puerperal woman. Drs. Verneuil and Vacher have demonstrated the fact that the presence of milk-sugar in the urine usually follows the occurrence of abscess of the breast during the puerperium. The painful condition of the breasts during this condition interrupts suckling so that the milk which is being secreted accumulates; the lactose of the milk is immediately absorbed and is promptly eliminated through the urine, producing a lactosuria. M. de Sinéty has further confirmed these observations, by producing this saccharine urine, after removing the mammae of recently delivered animals. Of course, the condition is a transitory one and disappears, usually, with the cause that gave it birth.—*Journal de Medicine et Chirurgie.*

Bacillus Tuberculosis.—Professor Feltz, of the medical school at Nancy, France, has repeated Koch's inoculation experiments with cultivated bacilli, and has failed to reproduce the disease they are supposed to cause. He does not consider his experiments as decisive, however, and will repeat them again before pronouncing upon the great discovery.—*Gazette des Hopitaux.*

The Fortnightly Review tells of an orthodox physician who said disparingly of an irregular practitioner, "Ce n'est pas un médecin c'est un guérissiér," which being translated, might be rendered, "He is not a physician, he is a 'curer'." The anecdote serves to illustrate the difference which actually exists between your "scientific" physician so-called, and the inteligent general practitioner.—*Detroit Medical Age.*

Dr. Da Costa is credited with the following: "If one has not too much to do he writes a short paper on phthisis; if one has little to do, he wrises a long paper on phthisis; if one has nothing to do, he writes a book on phthisis." "Gynecologists, as a rule, part their hair and their names in the middle, and never die until they have invented pessaries and speculums innumerable.—*Detroit Medical Age.*

Salicylic Hair Tonic.—

Borate of soda	℥x
Salicylic acid	ϑx
Tincture of cantharides	℥vj
Bay rum	℥xxv
Rose water	℥xxv
Boiling water, enough to make	Ojvss

Dissolve the borax and acid in the boiling water; mix the bay rum and rose water with solution; then add the rest and filter.—*Druggists' Circular.*

Meteorological Summary—May.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temp'ture.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	29.964	74.5	64.3	North	.....	Mean Barometer,
2	30.081	71.8	74.2	S. E.	.....	Highest Barometer, 30.191-24″
3	30.051	71.8	70.7	S. E.	.....	Lowest Barometer, 29.714-20″
4	30.003	71.2	80.7	S. E.	.17	Monthly Range of Barometer, .481.
5	30.084	75.5	70.0	North	.38	Mean Temperature, ——.
6	30.112	75.8	62.0	N. E.	.....	Highest Temperature, 88 0-15″
7	30.059	76 0	60.7	S. E.	.....	Lowest Temperature, 56.5-23″
8	30.031	75 0	73.7	South	.....	Greatest daily range of Temperature, 18.7-30″
9	30.043	73 0	85.7	South	.01	
10	30.072	74.7	80.7	East	.....	Least daily range of Temperature, 10.3-9″
11	30.089	75.8	71.3	North	.04	
12	30.064	75.5	64.0	East	.....	Mean of Maximum Temperature, 81.2.
13	29.963	76.3	67.3	South	.....	Mean of Minimum Temperature 67.3.
14	29.931	78.9	76.7	S. W.	.08	Mean daily range of Temperature, 13.9.
15	29.987	81.1	78.3	North	.....	Prevailing Direction of Wind, S. E.
16	30.043	77.6	63 7	East	.....	Total movement of wind, 5519 miles.
17	30.013	76.8	71.7	S. E.	.....	Highest Velocity of Wind and Direction, 36 miles, N. W.
18	30.037	78.1	72.7	South	.....	
19	29.996	77.7	70.3	S. E.	.60	Number of Foggy Days, 0.
20	29.799	75.7	67.3	North	.....	Number of Clear Days, 10.
21	29.852	67.0	46.0	North	.....	Number of fair days, 16.
22	29.963	66.0	46.3	North	....	No. of cloudy days on which no rain fell 1
23	30.125	65.3	54.7	South	.....	Total No. of days on which rain fell, 9
24	30.140	70.5	67.3	S. E.	.....	COMPARATIVE TEMPERATURE.
25	30.071	74.5	73.5	South	....	1873..... 67.0 | 1878..... 67.4
26	30 028	71.3	89.3	South	2.41	1874..... 65.6 | 1879..... 67.9
27	30.072	72.8	71 2	N. W.	.....	1875..... 65.3 | 1880..... 71.2
28	29.986	74 5	70.8	South	.....	1876..... 67.1 | 1881..... 67.2
29	29.909	75.8	86.0	S. E.	1.03	1877..... 68.6 | 1882..... 72.5
30	29.955	76.3	81.5	S. E.	.58	COMPARATIVE PRECIPITATIONS.
31	30.061	76.7	84.3	S. E.	.....	(Inches and Hundredths.)
						1873..... 1.74 | 1878..... 4.51
Sums.	.....	....	....	.....	Tot.	1874..... 13.62 | 1879..... 9.17
Means	30.019	74.3	70.9	S. E.	5.41	1875..... 8.05 | 1880..... 6.88
						1876..... 6.41 | 1881..... 3.92
						1877..... 4.79 | 1882..... 4.83

H. C. SMYTH, *Serg't Sig. Corps, U. S. A.*

Mortality in New Orleans from May 26th, 1883, to June 16th, 1883, inclusive.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
May 26	0	8	16	41	6	163
June 2	0	4	16	40	6	155
June 9	0	6	10	35	4	155
June 16	0	6	12	44	2	176
Total	0	24	54	160	18	648

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ORIGINAL PAPERS.

Report upon Yellow Fever in Louisiana in 1878 and Subsequently.

By S. M. BEMISS, M. D.

[Read before the State Medical Society at Shreveport, April 6th, 1883.]

Yellow Fever made its first appearance in New Orleans in 1796. Perhaps it is more strictly correct to say that the first recorded epidemic occurred during that year.

From that time to the present, thirty-six more or less extensive epidemics have prevailed in New Orleans, exclusive of that of 1796. Some of these have been very destructive to life; and all of them have inflicted losses upon individuals, and retardation of growth and prosperity upon the city.

These statements are based upon Dr. Chaillé's statistics, and it is safe to assume, as he does, that of the intervening forty-nine non-epidemic years, not more than seven have transpired without one or more cases of yellow fever.

New Orleans was the starting point of the epidemic of 1878, in so far as this country is concerned. This is sufficiently well substantiated by two facts: First,—cases of the disease occurred in New Orleans at earlier dates than at any other points of epidemic prevalence. Second,—in the great majority of instances of the occurrence of cases of

yellow fever in other localities, proofs of its direct or indirect derivation from New Orleans, were too strong to be set aside. In cases where the trail could not be distinctly followed, the presumptive evidence that the infection started from New Orleans, was impossible of negation.

The first alleged cases of yellow fever in New Orleans, in 1878, were the purser and engineer of the steamship Emily Souder, plying between New Orleans and Havana. The purser came on shore sick, on the 23d of May. The engineer was attacked on the 24th of May, after having left the ship.

There has been a good deal of controversy regarding the diagnosis of these cases. While the physician in attendance upon the first of these cases returned the death as being due to "malarial fever," it is a very significant fact that the patient died at 2 o'clock, A. M., and was buried at 10, A. M., of the same day, no public announcement of the death or funeral being made until several days after their occurrence.

It is neither necessary, nor important to a consistent history of the epidemic of 1878, that a connection shall be shown to have existed between the Souder cases above referred to, and those which followed them. During the interval between the arrival of the Souder, May 23d, and the date of the first unquestionable case, July 14th, there arrived at the port of New Orleans thirty-three vessels from Havana, Kingston, Matanzas, Progresso, Rio de Janeiro, Tuxpan, and Vera Cruz. Eighteen of these were from Havana.

That the readers of this report may be more fully informed in regard to the probability of importation through other sources than the Souder, upon her 23d May arrival, the following report from the resident physician at the quarantine station is inserted.

"In July, there were 36 permits; crews, 636; foreign passengers, 50; domestic passengers, 64, and collections, $736. On the 17th, the bark Pottsjevnan, 43 days from Rio, with a cargo of coffee, reported one death from yel-

low fever on the voyage. During this month, the bark Felisa, in ballast from Havana, arrived and reported one death from yellow fever; while on board there was, at the same time, one convalescent from the same disease. On the 29th, the schooner F. T. Richardson, from Matanzas, arrived with two cases of yellow fever on board. One of these, i. e., a colored sailor, was placed in hospital and died. The other, Mrs. Caroline Bellano, the wife of the captain, was treated on board of the schooner, and recovered."

The Pottsjevnan reached the city on the 18th, the Felisa on the 26th. In the meantime, since the Souder's arrival on the 23d May, with her supposed cases of yellow fever, she had made three other trips to Havana and returns, arriving at New Orleans June 13th, July 2d, and July 20th. On her arrival here July 2d, having left Havana June 25th, she was undoubtedly an infected vessel, if the following extract from the report made by Dr. T. Hutson Ford is correct:

"Dr. A. P. Sankford gives the following information with regard to the case of W. P. O'Bannon, very probably one of the first in the United States, and the first or second in St. Louis: 'Young O'Bannon, who was born in Missouri and reared in St. Louis, left this city in the steamer Commonwealth for New Orleans, Capt. Shields, his uncle, in command, late in June, 1878, holding the position of assistant second clerk. O'Bannon lived on the Commonwealth, and while at New Orleans, about the 3d or 4th July, went on board the Emily B. Souder, then lying at the levee, notwithstanding the prohibition of his uncle against his going on board any such vessel. The Souder had lately arrived from the West Indies, with a cargo of sugar, and at the time of O'Bannon's visit had two cases of yellow fever on board, which had apparently escaped the vigilance of the authorities. It is not probable, however, that O'Bannon came in direct contact with these cases. The Commonwealth lay close to the Souder at the time, and transferred to her deck from the brig five hundred hogsheads of sugar for the Belcher Refining Company in St. Louis. It is not known that O'Bannon went into the hold of the Souder during the process of transfer, nor is it probable that he did so, as his duty as clerk required his presence on the deck of the Commonwealth. From the

time of the transfer until the 12th July, involving the entire period of the return trip of the Commonwealth to St. Louis, young O'Bannon, who was only sixteen years of age, was romping and playing among the hogsheads of sugar, which were on the main deck of the Commonwealth, with his sister and his cousin, neither of whom were subsequently affected. He arrived in St. Louis on the night of Thursday, July 11, 1878, and seemed perfectly well on the Sunday following, being seen on that day by Dr. Sankford on a visit to the family. The next day (Monday) he complained of inappetence, and of slight chilly sensations. About 5, P. M., he was found by his mother, after a prolonged search, under the piano in the parlor, in high fever, and a profound sleep, from which it was very difficult to arouse him.

Dr. Sankford being called, saw him at 1, P. M., on July 16th. The stupor continued, and the fever did not abate; the tongue was inclined to be dry, and the skin devoid of moisture. The bowels had been constipated, urine scanty and high colored. There was, as yet, no nervous irritability of the stomach, but much thirst. These symptoms increased in intensity, the patient became delirious in the night, and the fever was observed to be of a continuous character. Some irritability of the stomach had now appeared. At a consultation with Dr. J. K. Banduy next day (Thursday), the fever was noted as still continuous; there was frequent vomiting, and about 8, P. M., ejection of unmistakable black vomit, which had begun some five hours previously, the dejections were also very dark. There was no very marked icterus until the morning after this, when suppression of the urine was also determined. The patient died on Friday, 19th July, 1878, at about 1, P. M., the fifth day of his disease.

At this date there was no declared yellow fever in the United States except the cases on board the Emily B. Souder, none as yet reported in New Orleans or elsewhere. At the consultation on the 18th July, the case was declared to be one of yellow fever, and the diagnosis was thoroughly verified at the autopsy, Drs. Sankford, Banduy and P. G. Robinson being present. See statements of Drs. Banduy and Robinson."

In further support of a probability that yellow fever infection was introduced into New Orleans, through other vessels than the Souder, I call attention to the following

important fact, furnished me by Dr. William Martin, of the U. S. Navy: On the 3d June, 1878, the Martha, a lower coast packet, arrived in New Orleans with two cases of sickness on board. These sick persons had been put on shore at some point not definitely mentioned below the Quarantine Station, and had made their way to a landing of the packet Martha, and obtained passage to the city on board of her. Col. J. T. Robb, of Chicago, who furnished Dr. Martin with these facts, affirms that the cases were undoubtedly yellow fever. The Captain of the Martha, recently interviewed by Dr. Martin, does not remember the facts as above stated, but admits that it was a frequent occurrence for sailors either to be put on shore from ships, or voluntarily to leave them at various points on the river, and reach the city by means of the coast packets. The records of the Martha show that she actually arrived in the city on the 3d day of June. Mr. Edward Hernandez, agent of the Souder, Margaret and Tappahanock, all running between New Orleans, Havana and Key West, testified before the Congressional Committee that the Tappahanock arrived June 2d, and the Margaret June 7th. The Customhouse records place the arrival of the Tappahanock June 3d, and her day of departure from Havana, May 25th. The Margaret arrived on the 7th of June, having left Havana, June 1st. The sick men alluded to may have left the Tappahanock or some one of four other ships which arrived the same day from West India ports.

On the other hand it must be conceded that the general history of yellow fever comprises examples of the occurrence of epidemics, which were preceded by cases separated by as long an interval from the first recognized epidemic irruption, as that observed in the history of the epidemic at New Orleans, in 1878.

There are two rational methods of explaining this seeming incongruity with the usual period of yellow fever incubation. The first is, that the cases forming the intermediate links, may not have been recognized by the medical attendant, or may have been intentionally concealed.

The other is, that the poison may have smouldered so long because no unprotected person chanced to come within range of its infection.

Whether either of these suppositions is correct, we must admit that the term "incubation" is very inexactly used, when employed to describe the intervals, whether long or short, between cases of yellow fever, without indicating precisely whether it relates to the period of quiescence of the poison in the human body after known exposure to yellow fever poison; or whether reference is made to the length of time the poison may smoulder or retain its power to infect, outside of the human system. The former period is so definitely marked, that longer than ten days is a matter for just criticism and investigation, while those life cycles which limit its activity as a toxic agent are unknown to us.

While it is impossible to prove when or where the first case of yellow fever occurred among the inhabitants of New Orleans in 1878, it is perfectly well known that those early cases which were recognized, were, for the most part, in the families of persons whose occupations exposed them to danger of receiving the infection from shipping, either while in the harbor, or upon the river, between the city and the jetties.

It must be stated, in this connection, that the historical fact, which more than all others proves that the starting point of the infection in New Orleans was among the shipping, or in other words the harbor, is the record of the tow-boat John D. Porter. This boat left New Orleans on the 18th July, and must have obtained in the harbor the poison which she afterwards distributed through her voyage of more than a thousand miles. The first case in Charity Hospital, which was admitted July 18th, was attacked on the 15th and had come up the river from the jetties about the 10th.

At this date no case of yellow fever had been officially reported to the Board of Health, but it is almost certain that cases had occurred, even as early as the last week of

June. Perhaps the best authenticated of these is the case of Mrs. Wasson, at No. 122 Constance.

Some three or four other cases have been reported to the writer, one of them dated as early as June 17th, but as they have not been satisfactorily proven to be cases of yellow fever, they are not included in this historical summary. It is, however, proper to be mentioned, that on the 11th July, I was called to see a child residing at No. 155 Constance, who had been attacked on the 7th of the month with a chill, followed by fever, was out on the street on the 8th and sick again on the 9th. On the 11th I was called to see him, and found, not only from the history, but from the curative influence of quinine, a case of malarial intoxication. On the 13th, the child became worse, his fever being persistent, and no longer influenced by quinine. On the 18th, hemorrhage, black vomit and death occurred, convulsions attending the last hours. At that time no case of yellow fever was supposed by the family or myself to have existed in the neighborhood of the patient. But simultaneously with the occurrence of this case, the locality became so intensely infected, that no possible doubt can exist in regard to the agency of preceding cases in bringing about this condition.

But there is indubitable testimony to show that several yellow fever foci existed in New Orleans at date of July 15th to 20th.

It would appear, however, that little was known of these facts by the Board of Health, and still less among the busy marts of commerce of the city.

The following extract from an editorial in the *Times* of July 22d shows the amount of information possessed by one of the daily journals of the city at that date:

"Never was our city more healthy than at present. There is neither yellow fever, nor even severe malarial fevers here. The fevers which do exist are such as may be found everywhere at this season, and yield readily to treatment. The heat has not been as intense here as in hundreds of other localities further north, and cases of death from that cause are so infrequent that their occur-

rence creates astonishment. Therefore, we say to all, without fear of contradiction, that New Orleans is to-day the pleasantest city in the Union, as well as the healthiest."

After it became known that yellow fever had really obtained a threatening foothold in New Orleans, the attention of the medical profession was generally directed to it, and its progress more correctly reported. On the 25th July, the President of the Board of Health sent the following telegram to Pensacola:

"Twenty-three cases, all told. Thirteen deaths. Ten convalescents. Not epidemic. Hope to control by disinfection.

SAM'L CHOPPIN."

When a portable disease makes its appearance in one part of a populous city, the manner of its spread to other parts, it is often impossible to trace satisfactorily. About the 25th July, the disease suddenly appeared at the corner of General Taylor and St. Charles streets. This is one of the cleanest and most inviting parts of the city, and is more than a mile distant from the Constance street focus previously referred to. There is, however, strong evidence supporting the belief that the infection was carried to this point in the clothing of a seamstress who lived in the infected part of Constance street, No. 78, and who went home at night to return the next morning to the family in which she found daily employment, and in which the first cases in this part of the city appeared.

By reference to Map No. 1*, illustrating the outbreak of yellow fever in New Orleans, the reader will be enabled to see what a comparatively small portion of the area of the city had been reached by yellow fever during the month of July.

The locality of over one hundred and forty cases is indicated on this map, more than two-thirds of which can be traced to the Constance street focus.

The following reports made to the Board of Health at its meeting August 1st, show quite definitely the prevalence and spread of yellow fever in the city up to that date:

* Not published.

"The president announced that the sanitary inspectors of the first and second districts have been too busy to make their monthly reports.

Dr. Landry, sanitary inspector of the

SECOND DISTRICT,

in his report for July, says: The prevalence of yellow fever and the all-absorbing interest in its progress felt by the entire population, have withdrawn public attention from the general health of the district which, save the few cases of yellow fever already reported, has been very fair. But this scourge, which hitherto has principally confined its ravages to the first district, is now slowly creeping across Canal street, and it is to be feared that within a fortnight there will be cases all over the district from Canal to Esplanade.

The sanitary inspector of the

THIRD DISTRICT

reports that during the month, that locality has been entirely free from yellow fever. Malarial fevers have prevailed to some extent, but there have been but seven deaths.

Attention is again called to the filthy condition of the streets and gutters. Under the circumstances, the inspector is surprised to see the locality so healthy.

The gutters are covered with green scum, and when cleaned the foul matter is not removed. Disagreeable and sickening odors arise from Claiborne Canal, particularly at night, and this in itself is sufficient to create disease.

There were three cases of small-pox during the month.

The sanitary inspector of the

FIFTH DISTRICT

reports that the health of Algiers remains good, there not being a case of small-pox or yellow fever. There were quite a number of cases of intermittent fever, but not one resembling yellow fever.

The streets are in bad condition owing to the small number employed, and a fish pond in which the fish are dying, located in McDonoughville, is a great nuisance.

The sanitary inspector of the

SIXTH DISTRICT

reports the health of that locality excellent. One case diagnosed as yellow fever occurred at the corner of Coliseum and Peniston streets, was reported July 22d, on the sixth day of illness.

An attempt to disinfect was prevented by unknown parties, who emptied the tank during the night. An attempt to disinfect has not been resumed, there having been no other case in the district.

The sanitary inspector of the

SEVENTH DISTRICT,

reports the general health good, with a slight increase of malarial fever. There have been no contagious or infectious diseases during July. Owing to heavy rains the streets are in a poor condition, but the drainage of the district is good, and a little industry would remedy the evil.

Dr. Choppin in a brief address gave a sketch of the disease from its first inception on the 12th of July.

The first point in which the disease existed was that focus bounded by Magazine, Chippewa, Thalia and Felicity streets.

The second infected locality was bounded by Magazine, Poydras, Julia and the river.

The third focus lay between St. Joseph, Girod, Magazine and Tremé streets.

Another focus occurred in the section bounded by St. Joseph, Girod, Liberty and Tremé and Conti streets, extending as far back as Galvez. A sixth is on Customhouse between Royal and Bourbon, with a few cases in the section bounded by Josephine, Coliseum and Philip streets. Every case outside of these was recent, and he hoped, by the use of carbolic acid, to eventually exterminate the disease."

At noon, July 31st, total number of cases reported was 135—deaths, 39.

Estimating the population of the city at 200,000 remaining at date of 1st of August, one in 1474 had been attacked

by yellow fever. The mortality rate up to the above date was 28.88 per cent. of persons attacked.

During the month of August, the number of cases of yellow fever reported in the city was 5974, and deaths 876. While some cases and deaths were reported during the month of August from every district in the city, the epidemic prevailed with greatest violence in the First and Second Districts, which alone returned 803 deaths of the 876 occurring in the whole city. Reports from the First District, however, include the number of deaths during the month of August from Charity Hospital, Hotel Dieu, and Touro Infirmary. The mortality rate for August was 14.66 per cent. If we venture to suppose the population of the city was reduced during the month by flight of the inhabitants, to 190,000, one in thirty-two of those remaining suffered an attack of yellow fever.

The Annual Report of the State Board of Health, and the reports of the daily press, are so erroneous in respect to the number of cases which actually occurred in the city during the remainder of the epidemic, that correct computations cannot be based upon them. One serious difficulty in getting correct records of cases or deaths from yellow fever in New Orleans, rests upon the fact that a number of leading practitioners here hold to a belief, that persons born, and continually resident here, enjoy immunity from attacks. These physicians generally experience in their practice a large increase in the prevalence and fatality of malarial diseases during epidemics of yellow fever. The number of deaths returned as resulting from the various forms of malarial fever in 1878 was 793, while in 1877 they amounted to 418. Prior to the 1st of August, 1878, at which time we may say yellow fever became seriously prevalent, 114 deaths were ascribed to malarial fevers, and 679 deaths were returned as due to the same causes during the remainder of the year. In 1877, up to 1st of August, 179 deaths were returned from the same causes, and 239 for the remainder of the year.

It is so generally true that two formidable diseases do not prevail as epidemics co-existing in the same population, that it is reasonable to assume that a large percentage of deaths returned as due to malarial fever, was really from yellow fever.

For my own part, I can affirm that I attended but very few undoubted malarial cases during the prevalence of yellow fever, and even these few—less than ten—occurred during the early part, and again in the waning of the epidemic. On the other hand, I attended very many patients through undoubted attacks, who were natives of New Orleans, and who had spent their whole lives in the city.

Dr. Dowler, in writing of the liability of native children to yellow fever, uses the following language:

"Now we will suppose, as in 1867, a sweeping epidemic of yellow fever should make its appearance. A portion of the cases will be called, by certain gentlemen of the faculty, paludal fever, etc. But, as it invariably results, as it did in that year, that such cases appear, spread and disappear 'pari passu' with the prevailing epidemic, when the cause of yellow fever disappears also, the proof is plain that the cases have no paludal origin, and that there are no circumstances of difference of causation; and, therefore, logically, no difference in the effects of that causation—that is to say, the aforesaid paludal fever, so-called, is one of the types of yellow fever.

The logical and historical method teaches us with all the certainty of which any such subject is susceptible, that all individuals, natives or otherwise, however old or young, that have not already undergone the disease, are all equally subject to the disease, and that when we are in possession of the fact of acclimation or non-acclimation we have the means of determining, in the most positive manner, who is to take the disease and who is not, and of determining in a positive manner all the disputed cases that have arisen on symptomological and pathological grounds during previous epidemics. During the late epidemic (1867) I was perfectly certain that five of my own children would take yellow fever, and that three would not, and the grounds were that three were born before the epidemic of 1858, and that the five were born subsequently, and the event proved the conclusion. No one who has paid due attention to the logi-

cal and historical method could doubt the existence of yellow fever of Creoles previously to 1853, or could fail to recognize why it was that the cases in the memorable epidemic of that season were numerically greater than ever before; or have failed to realize why it was that all native children under five years were attacked with the disease; or why it was that in 1854 and 1855 all native children under one year of age suffered; or how it was that in 1858 all native children under three years of age were attacked; or, moreover, how it was that in the epidemic of 1867 all children under ten years old, forming a far greater number of children than were ever attacked in any one year before in this city, suffered from yellow fever.

If the logical and histological method has not settled all this beyond controversy, then there can be nothing settled in the science of medicine.

The great number of children who have been attacked during the epidemic of 1878 has been remarked as a singular fact, which may be explained in accordance with the above theory. The number of deaths of children born since 1867, is 50 per cent. of the entire mortality."

The aggregate number of cases which occurred in New Orleans, from the beginning to the close of the epidemic, was not less than 27,000, and the number of deaths not less than 4500. The sanitary census of the Fourth District of New Orleans, taken in 1877, gives a population of 36,365 white and colored, of whom 28,848 gave no history of previous attacks of yellow fever. The number of cases of yellow fever occurring in this District in 1878 was 6092, being 17 in each 100 of whole number of inhabitants of the District. If we allow the same percentage of attacks to the whole population of the city, and place that at 196,000, it would result that more than 27,000 persons had suffered attacks of yellow fever in the whole city. This method of calculation is liable to the criticism that a larger ratio of the population in the lower Districts of the city was protected by previous attacks than in the Fourth District. While this is undoubtedly true, it must be taken into account that a larger proportion of persons fled from the Fourth District, which would probably offset this disturbing cause.

The mortality rate for the whole city, according to the above computation, was 16.66 per cent.; thus 1666 persons died in every 10,000 cases of the disease. The results of private practice in New Orleans are exhibited in the following statistics: Four of the principal practitioners in the city treated in private practice 975 patients—909 white and 66 colored. Of the former, 92, or 10.11 per cent., died; of the colored, only 2 died.

The cases and deaths among the whites, classified by age, are as follows:

AGE.	CASES.	DEATHS.	PER CT.
Under 5 years of age.....	206	26	12.67
From 5 to 10 years of age...	233	20	8.61
" 10 to 20 " " ...	183	9	4.9
" 20 to 40 " " ...	232	39	16.7
" 40 to 60 " " ...	47	6	12.7
" 60 to 80 " " ...	4	2	.50

The physicians above quoted lived in different parts of the city. All of them extended their visits and professional services to the sick to the very limits of physical endurance, and consequently included in the above lists some patients who were not able to procure the comforts and attention necessary to the sick. Some cases also were included to which the physician was only brought, that he might sign the death certificate and so avoid the coroner's inquest. After making allowance for increase of mortality on these scores, I think it safe to assert that the best results obtained in private practice varied from 7 to 10 per cent. of mortality rate.

No efforts were made by the health authorities of New Orleans to establish camps of refuge. During the month of August, about one thousand persons of that part of the population generally called "Diegos," being for the most part emigrants from the islands of the Mediterranean,

formed a camp near the river above the city. Dr. S. L. Henry gives the following description of them:

"They were not camped in the strict sense of the word, as with few exceptions they occupied vacant dwellings along the Mississippi river, to the extent of about four miles, and some distance back on the Metairie ridge, which is about one mile from the river, with a low, boggy swamp intervening. The houses were crowded, often to overflowing, until the disease attacked some of them; then they scattered and sought new places of abode, in some instances abandoning the sick to death.

"Everything considered, the mortality among them was not great, being about 15 per cent. They exercised no discretion in diet, eating all kinds of green fruit in all stages of the disease. They seldom died but from imprudence. Their therapeutical armamentarium was confined to oleum ricini and orange leaf decoction *ad libitum*. In a few instances they camped under some of the live oaks on Metairie ridge for a short time while the weather was dry. Those in houses had no bedsteads, sleeping on the floor. With few exceptions, they aired their bedding daily, when the weather was suitable, and seldom remained in doors when they were able to be about. The disease attacked those of middle age mostly, next the young, seldom the old. The fatality was greatest among the first named class, not because of the disease alone, but because of their uncontrollable dispositions.

"According to the best information I can obtain, from one-third to one-fourth of their number suffered attacks of yellow fever."

I do not consider it proper to enter at this point upon any discussion of the different theories held respecting the indigenous, or imported origin of the epidemic of 1878. Relying upon the facts, herein stated, the various members of the commission joined me in the opinion that the infection was imported through passengers, or parties arriving in New Orleans in vessels, sailing from foreign infected ports.

Touching the spread of the disease after its introduction; personal intercourse, and occupancy of contiguous localities were the only strongly marked factors.

The agency of winds in conveying the yellow fever was not sufficiently marked to justify any assertions in regard to it. It made its appearance in quite a number of pretty widely scattered families in Algiers immediately after a severe norther, which had lasted nearly or quite twelve hours. Some observers thought that the poison was borne by the strong current of air, from one shore of the river to the opposite.

The monitor Canonicus was anchored in the river very much closer to the Algiers shore than to New Orleans, and as the fever had broken out on board some days before the wind storm, some concluded that the poison was blown from her to Algiers.

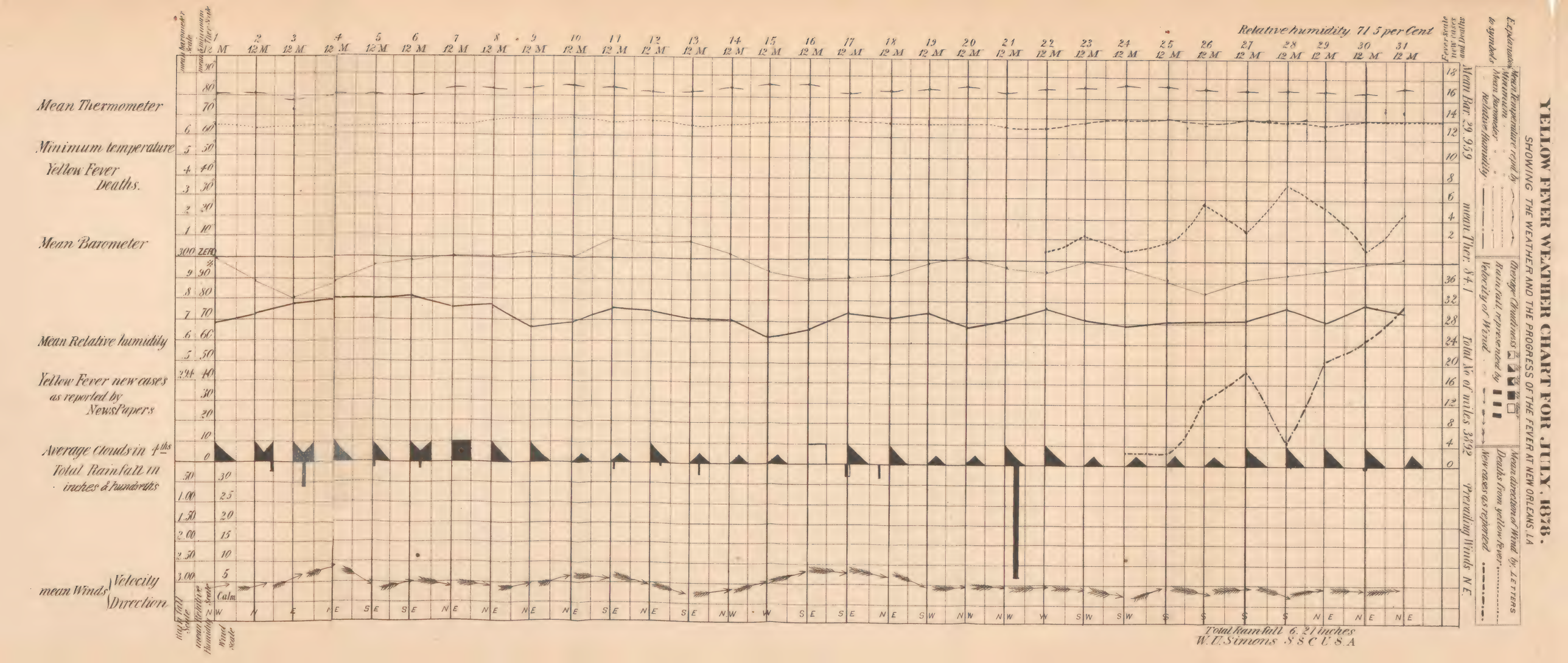
The first case of fever on the Canonicus occurred Aug. 20th. The following is Dr. Armstrong's testimony regarding its appearance in Gretna:

"Dr. J. D. Armstrong, sworn: I have been a practising physician in New Orleans and vicinity since 1869. The first case of yellow fever in Gretna made its appearance early in September, some time after it had been declared epidemic in New Orleans. The first case originated about one square from the river. The communication between New Orleans and Gretna was uninterrupted during the season, and there was no quarantine. I was not in Gretna in 1870 and 1871, and do not know whether there was any fever there then or not. I visited McDonoughville, and there saw some twenty cases. The wind for several weeks past had been blowing from the south-west. There were some cases in Algiers, almost immediately opposite the place where the Canonicus was lying, in the Gardere family."

While I wish, in this immediate connection, to refer the reader to Sergeant Simon's diagrams, I am obliged to say that I saw nothing extraordinary in the appearance of the clouds or other atmospheric conditions prior to or during the epidemic. I know of no observation which supports the belief in "yellow fever clouds," and feel disposed to place them alongside of Mr. Glaisher's cholera clouds, which is simply saying they may theoretically exist, but are yet impossible of practical detection and definition.

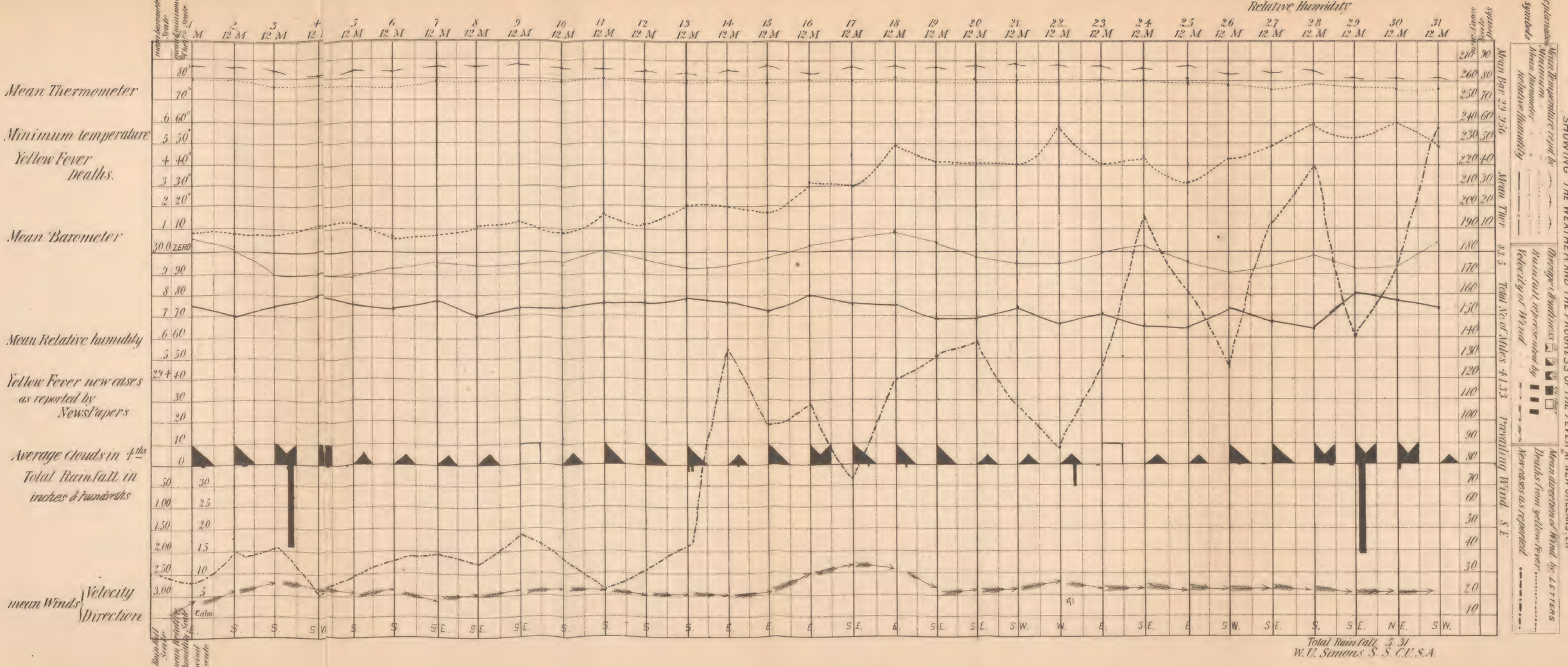
YELLOW FEVER WEATHER CHART FOR JULY, 1878.

SHOWING THE WEATHER AND THE PROGRESS OF THE FEVER AT NEW ORLEANS, LA



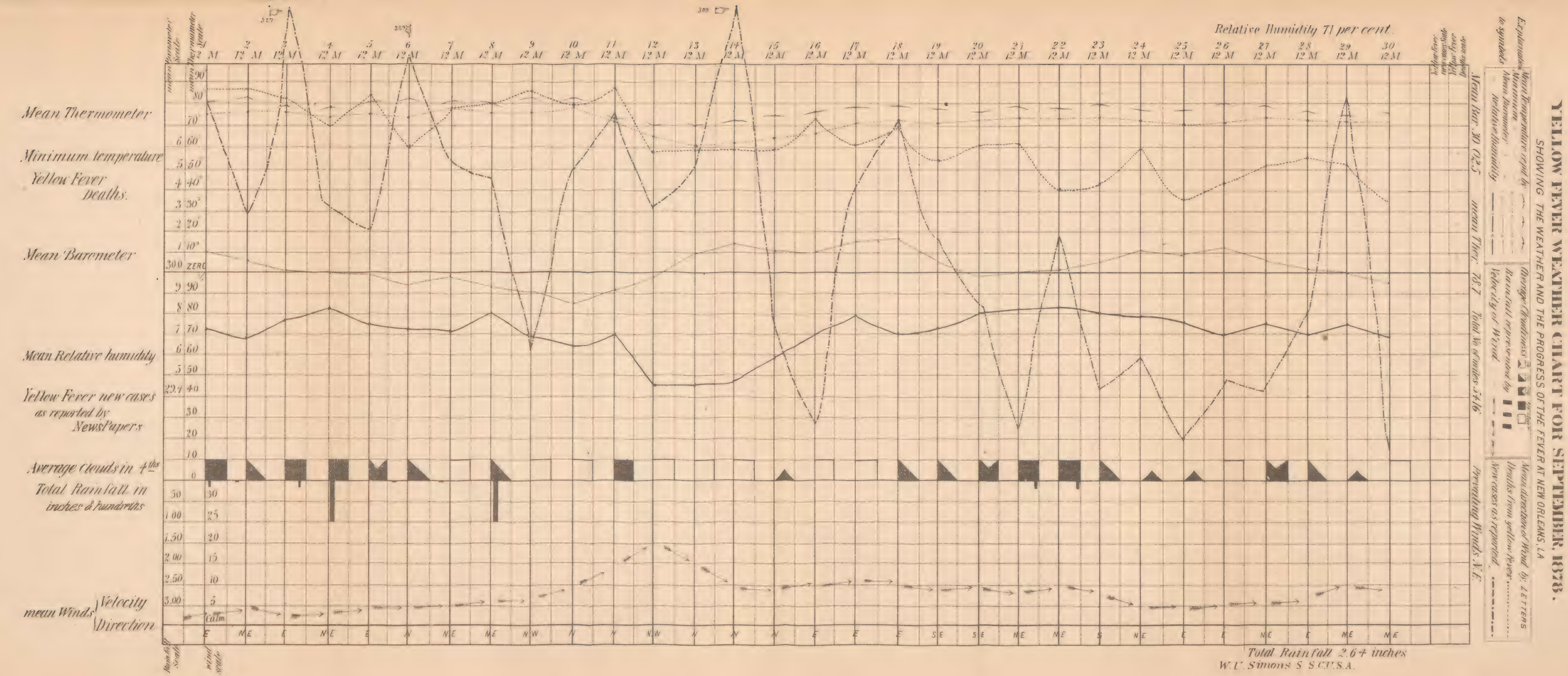
YELLOW FEVER WEATHER CHART FOR AUGUST, 1878.

SHOWING THE WEATHER AND THE PROGRESS OF THE FEVER AT NEW ORLEANS, LA



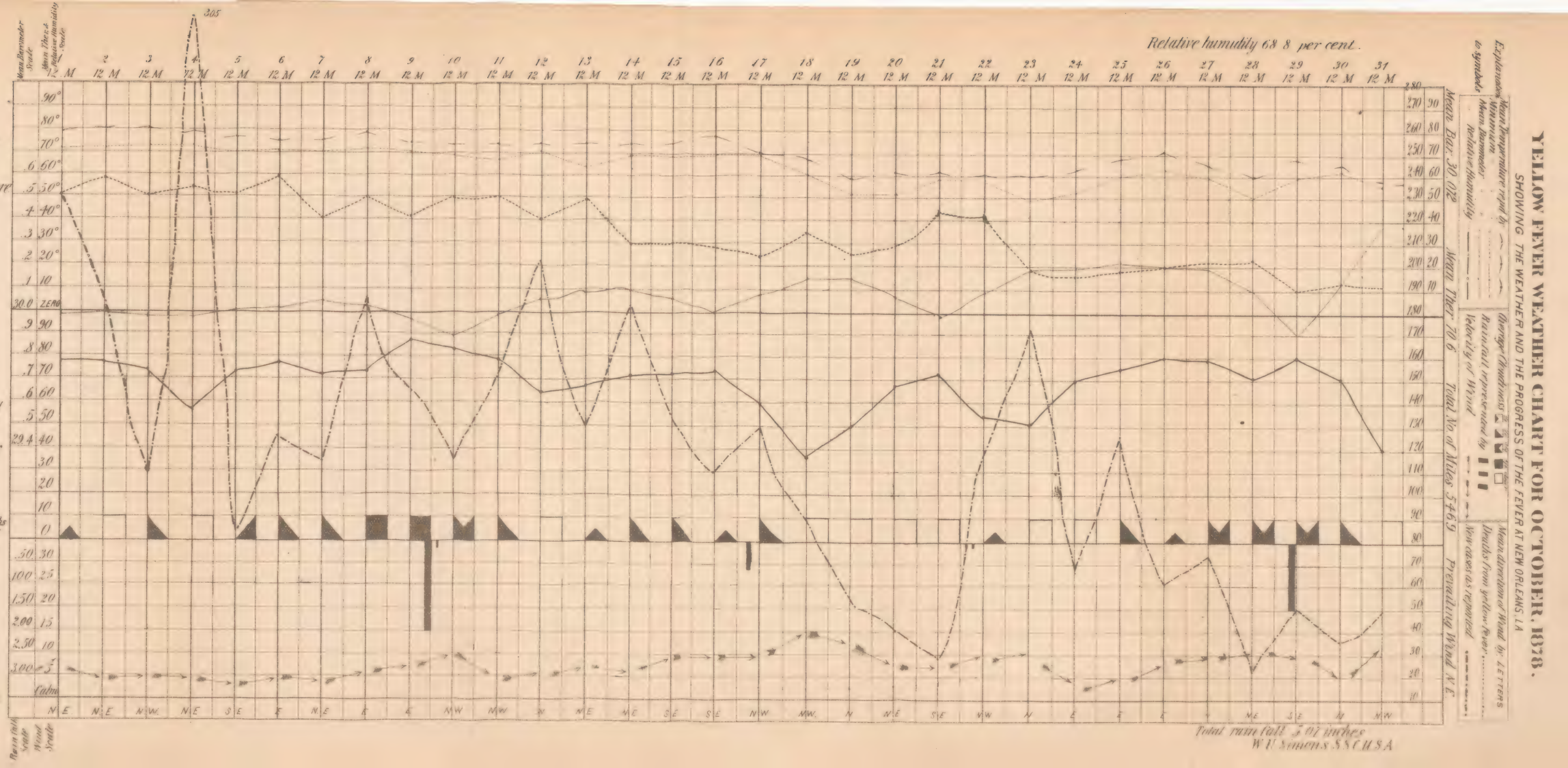
YELLOW FEVER WEATHER CHART FOR SEPTEMBER, 1878.

SHOWING THE WEATHER AND THE PROGRESS OF THE FEVER AT NEW ORLEANS, LA



YELLOW FEVER WEATHER CHART FOR OCTOBER, 1878.

SHOWING THE WEATHER AND THE PROGRESS OF THE FEVER AT NEW ORLEANS, LA.



While the general fact is well understood that some correlation of certain meteorological conditions, favors, if it does not determine epidemics of yellow fever, we are not yet able to formulate them with precision. I place high readings of the thermometer at the head of the list of these conditions, but we should possibly count as of equal importance suitable moisture, and some unknown pabulum adapted to the support and multiplication of the poison or its further maturation or toxic-evolution, if either such change occurs outside the human body: For the theory which holds, that yellow fever infection is an organism, must suppose some form of pabulum for the nourishment of the organic entity.

Without further comment at this time, I introduce here the very interesting and carefully prepared diagrams of Sergeant W. U. Simons:

Explanations to the "Yellow Fever Weather Charts," designed and prepared for the "Yellow Fever Commission" by W. U. Simons, Serg't Sig. Corps, U. S. A.

"In the preparation of these charts I have tried to make them as clear and easy to understand as I could to do them in one color, which was done for cheapness of lithography; had they been executed in a variety of colors they would have been much easier to understand. As it is, I have made them as plain as possible by following the same way of illustrating each instrument of meteorological portion by the same symbol throughout, and in each chart having the line representing the new cases and that representing the deaths, the same.

The scale used is the same in every case, except the fever scales in one for July, which I made smaller in number to the square simply because in July, the first few deaths and cases would have been hard to find on the chart had I caused the scale to run in tens, as in the other months.

I have not prepared one for November because at the begining of that month the epidemic was virtually at an

end. The reason I have made one for the entire month of July was to show what the conditions of the atmosphere had been for a few weeks preceding the breaking out of the epidemic.

Below, I give an index of the symbols used in drawing the charts, with an explanation of what each symbol is used for. The mean for the day of each instrument is used except the minimum thermometer and the rainfall. The dot placed on the blue line representing 12. M. (noon) of each day, or, whenever the line or symbol touches, or crosses, it indicates the position occupied on the scale, by the mean of the instruments for that day. The rainfall is so placed that the right hand edge of the line representing the depth of water that fell is made to represent the time at which the rain ceased to fall that day, using the blue line as a unit to represent 12. M. (noon) of each day. The arrows that mark the mean velocity of the wind are placed so that the apex of the barbed head touches on the 12. M., line, a point coinciding, with the mean velocity of wind that day on the scale."

During the epidemic, "*L'Abeille de la Nouvelle Orleans*," of August 13th, published an editorial, and also a communication upon the subject of intramural burial places, and their influence upon yellow fever spread. The papers are of such interest as to justify the insertion of the part relating to cemeteries:

"We open a subject on which little has heretofore been said, although it may occupy a prominent place in the list of infections with which we are afflicted. We speak of the old cemeteries, situated in the very heart of the city. We do not know any city in which there are so many cemeteries, or where they are so situated as to produce so much unhealthfulness, in consideration of the extraordinary number of tombs they contain, as here. Here we do not bury the dead, we simply wall them up, one upon the other, by stories, and often the odor of dead bodies escapes from them by imperceptible cracks. This is not all, these cracks often form gaping crevices, when the infection comes with all the strength decomposing human remains can cause. This is proven by the fact that at the end of three years the same

tomb, and the same division may again be used. If we open a division at the end of three years, we find a few bare bones, which we push aside to give place for other remains. Since there is such rapid decomposition, and no decomposition goes on without air, the air must penetrate these vaults. If it enters it also comes out, but loaded with infected and pest-bearing odors. The atmosphere is necessarily vitiated by them. Persons dwelling some blocks off scarcely perceive it, and fancy the odors we speak of do not exist. The fact is, one must be in the immediate neighborhood of the cemeteries to understand the unhealthfulness they cause, and even the neighbors confound the miasma from the dead with all the other odors that are so numerous."

My own attention was drawn to the surroundings of Washington cemetery in the Fourth District. I can state with confidence, that yellow fever was not more prevalent, nor of worse type, in the vicinity of that burial ground than elsewhere in the city. Furthermore, owing to an imperfection in the wall on the north side of this cemetery, the odor of decomposing bodies was disagreeably perceptible. Often when passing at night I remarked the fact, and directed my attention to a possible effect on the spread, or mortality of the disease.

While the dead bodies of those recently expired are undoubted sources of infection in yellow fever, it is not established that the effluvia of advanced decomposition have any such effect.

It seems probable that certain qualities belonging to yellow fever germs, perhaps ponderability and that unknown quality which causes it to adhere to surfaces, are sufficient to prevent atmospheric accumulations, except in close contiguity with the surface of the earth. It has been properly spoken of as a low-laying poison, creeping, as it were, near the surface of the ground. Nor do I know of any facts which substantiate a theory that other volatile materials may become entangled with yellow fever germs and serve as air borne vehicles of transportation for them, from one country to another, or through greater distances than one or two miles, if so much.

I endeavored to ascertain if exposure to night air influenced the spread, or gravity of cases of yellow fever, by comparing the cases in the day police force, with those in the night force. The result is set forth in the following letter from Chief Boylan:

OFFICE CHIEF OF POLICE,
New Orleans, Oct. 23, 1878.

S. M. BEMISS, ESQ., M. D.,
Chairman Yellow Fever Commission,
New Orleans, La.

Sir:—I have the honor to report to you the number of cases and casualties of yellow fever, during the epidemic of this year to date, among the members of the "Crescent City Police Force," as follows:

The force consisting of four hundred and seventy-five men, rank and file: and an average of fifty supernumeraries.

Day force has had twenty-four cases and two deaths.

Night force has had fifty-two cases and six deaths.

Total force: Five hundred and twenty-five.

Total cases of yellow fever: Seventy-six, or one-seventh of the force.

Total deaths from yellow fever: Eight, or one-ninth of the cases.

All of which is submitted as per request.

Yours respectfully,
THOS. N. BOYLAN,
Chief of Police.

Investigations into the influence of uncleanly habits or surroundings upon the spread of yellow fever in New Orleans are equally undecided in result. There are various reasons why it is so difficult to determine to what extent filth operated as a factor in promoting the spread of yellow fever in New Orleans. Those portions of the city which were most filthy, and the least desirable for residences, were occupied for the most part by poorer classes of whites and negroes, a large percentage of whom were protected by previous attacks.

But after admitting the full force of this disturbing cause, in efforts to arrive at truth on this point, it was dis-

heartening to the enthusiastic sanitarian, to drive along the filthy open canal in the centre of Melpomene street, and contrast the comparative exemption of that thouroughfare from sickness, with the frightful decimation which occurred in the clean and beautiful residences about the intersections of Euterpe with Carondelet and Baronne streets.

New Orleans was not in a good sanitary condition at the time the epidemic appeared, nor at any period of its prevalence. Publications were made revealing the fact, that "kitchen refuse, dead cats, dogs and fowls" were dumped in open squares in various parts of the city.

It was also shown that the earth of the pauper burial ground had become so thoroughly saturated with animal matter, that the bodies buried there were imperfectly deodorized, even when covered with the customary eighteen or twenty inches of soil, which was not always done. But from my own observation, these violations of sanitary laws, gross and outrageous as they were, exercised little appreciable influence over the spread of the fever. The localities where they were enacted, were not in populous districts of the city, and in so far as my own experience gives me opportunity to testify, they were neither so flagrant nor so frequent as the publications indicate.

Still, it is asserted, and in so far as my knowledge goes, the assertion remains uncontradicted, that "four thousand loads of kitchen garbage" had been used to fill up streets in the early part of 1878.

One of the most disagreeable and common nuisances against the senses, and probably against health, was committed daily during the whole epidemic, by street scavengers and street sprinklers. The former would drag cart loads of offensive mud from the gutters and leave it exposed in the streets, often for days or even weeks before its removal. Sprinkling unpaved streets with pure water, is of such doubtful propriety during yellow fever epidemics, that in my present uncertainty, I should forbid it, but there is a method of street sprinkling, common in every part of New Orleans, which should be positively condemned: this is, throwing

water from the open gutters over the streets, until the whole surface is so wet that the dust is prevented from rising.

The sweeping character of the epidemic in this city was strongly marked. The disease seldom appeared in a family, or eleemosynary institution without attacking all, or the great majority of unprotected persons. In our present state of knowledge it is not possible to explain this feature of the epidemic. Theoretically, we can safely assume that it must have been due either to intrinsic augmentation of the quantity of infection, or to intensification of its toxic quality, or else to some increased susceptibility or receptivity on the part of the population to the infection. The former explanation is more fully in accord with the germ theory as applied to the infection itself, and I know of no causes influencing the population to have rendered it more than ordinarily liable to disease. There were on the other hand some remarkable, and altogether inexplicable instances of exemption from attacks, not alone of individuals, but of collections of persons under the same roof, either as families or inmates of charitable asylums. Dr. W. W. Black reports having charge of the Poydras Asylum, with eighty children as inmates, besides the usual attendants. He does not mention the number protected by previous attacks, but as no general epidemic had prevailed in New Orleans since 1867, very few, if any, of the children could have had attacks of yellow fever.

The first case occurred on the 16th of August and terminated in death August 17th. The next case occurred August 23d, after which only two other cases were developed in the asylum. Dr. Black gave small doses of quinine as a prophylactic, and the strictest hygienic measures were enforced in the asylum, together with a liberal use of carbolic acid.

Another asylum for children in the city is said to have enjoyed perfect immunity from cases of yellow fever.

The first case brought to Charity Hospital was admitted July 21st. The first among the inmates of the hospital, was in the person of a patient who fell sick July 28th, and

died August 1st.* During the whole prevalence of the disease, 817 cases were treated in Charity Hospital, with 411 deaths. The mortality rate being slightly over one-half of the whole number of cases treated in this hospital. One hundred and thirty-five originated in the hospital, of which, fifty-seven were fatal, somewhat less than one-half.

This list includes two resident physicians in charge of the hospital, both of whom recovered: ten medical students as internes, one of whom died; and six Sisters of Charity, of whom three died. The following tabulated abstract of practice in the Charity Hospital is of great interest, and may be relied on as correct.

Tabulated Abstract of Practice in Yellow Fever Epidemic of 1878.

New Orleans Charity Hospital.

	Ages Under.	JULY		AUGUST		SEPT.		OCTOBER		TOTAL.		Per cent.
		No. Treated.	No. Fatal.	No. Treated.	No. Fatal.	No. Treated.	No. Fatal.	No. Treated.	No. Fatal.	No. Treated.	No. Fatal.	
WHITE.	5	.....	.....	7	3	3	1	.....	.....	10	4	40.0
	5 to 10	.....	.....	2	1	1	1	.....	.....	3	2	66.⅔
	10 to 20	8	3	26	7	25	6	7	.....	66	16	24.2
	20 to 40	18	9	246	141	175	91	61	24	500	265	53.0
	40 to 60	9	6	75	45	83	45	18	10	185	106	57.3
	60 to 80	2	2	7	6	5	1	1	1	15	10	66.⅔
	Total..	37	20	363	203	292	145	87	35	779	403	51.7
BLACK.	10 to 20	.....	.....	2	.....	5	.....	1	.....	8	.....	.....
	20 to 40	.....	.....	11	3	8	1	5	1	24	5	20.8
	40 to 60	....	.....	2	1	1	1	3	1	6	3	50.0
	Total..	.....	.....	15	4	14	2	9	2	38	8	21.0
	Grand Total.....									817	411	50.3

* Owen Owens, age 25, native of Wales; has lived in Louisiana at various intervals during the last eight years; laborer, of intemperate habits, admitted to Ward 8, Charity Hospital, on February 26th, 1878, for necrosis of the femur, cause of which was not noted. He had previously suffered from several attacks of malarial fever. He contracted yellow fever on July 28th, 1878, in the ward to which he was admitted, as he never left it after admission, and had a well marked malignant case of the disease. He died on August 1st, with black vomit.

His was the first case of yellow fever contracted in the Charity Hospital. History, that of Case 83, in the recordbook of Ward 8, Charity Hospital.

These results are far from being commendatory of treatment of yellow fever in public hospitals, and the figures representing the success of yellow fever treatment in other hospitals are not very widely different.

In the Hotel Dieu, 110 deaths occurred, number of cases not known. In Touro Infirmary, 33 deaths, number of cases not known. But these remarks are not so applicable to asylums for children as to public hospitals. In the former class of institutions, excellent results are sometimes obtained by prudent medical advisers, properly seconded by persons in charge.

Dr. Bickham treated 33 cases in the (female) Children's Home, with no death. An extract from his report is included:

"At the Children's (female) Home, on Jackson street, there were 33 cases, one elderly lady and 32 children, and no death among them. This was 1 death in 40 cases in the two institutions.

"This success (much better than I had outside) I attributed, not to any skill or special treatment, but somewhat perhaps to management, and much more to the advantages we have in such disciplined institutions. In both, they were trained to obedience, and kept quiet, if told to do so, whether they wanted to or not. Everything was systematized, beds and wards were provided beforehand, good nurses were in readiness, and as soon as one complained she was constrained to acknowledge it, put to bed, and standing directions given to intelligent persons what to do before I could get there, and in this way much was anticipated, and important time gained. There is nothing like *starting* the case well, and all of the most important part of the treatment, as far as indication is concerned, should be done in the first twelve or sixteen hours. * * *

My treatment was the simplest possible: first a mild but effective purgative early, preceded by an emetic if there were ingesta, a foot bath, a little warm drink, if the stomach would bear it, reasonable cover to invite action of the skin, judicious ventilation, sometimes a little aconite or gelseminum, with some gentle diuretic, and the horizontal position strictly maintained. The purgative was very frequently castor oil, if indicated a small mercurial preceding it, and if there were any indications of malarial complication,

quinine, but not without. When the proper time came, they were gently stimulated and carefully nourished, and if the stomach was the least deranged, some anti-emetic was given, the stomach was left alone, everything else stopped, and the patient nourished and stimulated wholly by enemata, every three or four hours, of Valentine's Extract of Meat, combined with brandy, Ducros' Alimentary Elixir or home-made beef tea. There were some dozen very sick, and two at the "Children's Home" who threw up black vomit quite freely, but recovered. They were nourished in this way for days together, without a thing passing the lips except a teaspoonful of water or seltzer at a time. In this institution there were no cases of suppression of urine."

The following letter strongly supports the opinion advanced by Dr. Bickham:

No. 14 St. Anne street.

New Orleans, October 11th, 1878.

Gentlemen—Having noticed that your investigations will embrace the effect of location on mortality, I deem it proper to mention that out of eight and possibly more cases of yellow fever, on the front of square on St. Anne street between Levee and Chartres streets, *facing* Jackson square, none ended fatally. The ratio in that portion of the city near the French markets, is, I believe, computed to be exceptionally high. The buildings (Pontalba) in which above cases occurred, have a sunny, southern and western exposure and the open square affords excellent ventilation.

Another matter of interest (which has no doubt already attracted your attention) is the remarkably *low* ratio of mortality among the children in our various asylums afflicted by the fever, as compared with that among children at large.

It suggests the inquiry how far a *light*, *spare*, but regular diet: thorough discipline and obedience both in health and sickness: cleanliness; perfectly ventilated dormitories on upper floors, would tend to lower the death rate. The same inquiry might be extended to the reformatory institutions for adults.

Also, whether the mortality has been greater among those who slept on ground floors or among those on upper floors. The result would perhaps indicate whether the fever poison pervades the air only to a certain height and whether

absorption of the poison into the system is not greater at night than in the day, when mind and body are alive and active.

A keen interest in your researches induces me to take the liberty to address you.

With highest respect,

Your obedient servant,

C. F. W. DANKERS.

To Yellow Fever Commission of 1878.

I.—APPENDIX TO HISTORY OF YELLOW FEVER IN NEW ORLEANS.

NEW ORLEANS, October 13th, 1878.

Messrs. S. M. BEMISS, JEROME COCHRAN and E. LLOYD HOWARD,

Yellow Fever Commission:

Gentlemen—In reply to your circular letter, I submit the following report, in which the numbers of the answers correspond to your printed questions. Some of these I have, however, omitted, believing you have had access to better sources of information than those at my command.

1. Mention the date of the first case of yellow fever in your place. (Should this be unknown to you, please substitute first case in your practice.)

1st. The first case of yellow fever in my practice this summer occurred on the 19th July.

2. Mention those facts which account for the sickness of the first case.

2d. There was a case of fever within two squares of the residence of my patient at or about the time he took sick. Twice daily he passed through an infected portion of the city (going down Magazine street from Philip to Poydras), walking to and from his place of business.

3. Give dates of attacks of cases immediately following the first case or cases.

3d. July 30th—August 2d—August 5th.

4. State what connection, if any, existed between the second group of cases and the first case or cases, either as respects locality or personal contact.

4th. No connection whatever between cases of July 19th and July 30th. Case of July 30th occurred on Magazine street, between Toledano street and Louisiana avenue. Case of August 5th, on Louisiana avenue, corner of Laurel street, a distance of about three squares from the former.

Case of August 2d had no connection with any of those summarily mentioned above. I learned that there were cases of yellow fever in the immediate vicinity of the house in which my patient of August 2d lived,

(This case was on Annunciation street, between St. Andrew and St. Mary streets.)

No answers returned to questions numbered from 5 to 14 inclusively, for the general reason given higher up.

15. What measures of disinfection were practised as it respects localities, houses, furniture or clothing?

15th. In an asylum which I attend, I caused carbolic acid to be freely and repeatedly used in the buildings, outhouses, sinks, etc. I mention this asylum only, because I know that in the institution (St. Joseph Asylum, corner Laurel and Josephine streets) disinfection was thoroughly attended to. I recommended disinfection in a number of private families, but have doubts as to the manner in which it was carried out.

16. What is your appreciation of the attempts at disinfection you have described?

16th. In the St. Joseph Asylum, there are 200 orphans and 28 sisters and servants. It is impossible to state how many of the children may have had yellow fever. Among the sisters and attendants, only *seven* had had the fever in previous years.

Yellow fever broke out in the asylum on the 18th August. From that date to this (October 13th, 1878), there have been 23 cases of yellow fever in the house; three among the sisters, the remainder among the children.

17. What measures of personal prophylaxis were resorted to, either by medical advice or through a popular belief in the efficacy of certain agents or measures?

17th. At my request, before the fever made its appearance in the asylum, the sisters began giving sulphate of quinine twice daily to all the inmates, in doses ranging from *one* to *three* grains, according to the age of each individual, but after the first few cases had occurred, they became discouraged, and gave up its use.

18. What is your estimate of the efficiency of the plan or plans described?

18th. The facts under Nos. 16 and 17 are submitted without comment.

No answer returned to question 19, for the general reason given above.

20. Mention any features or characteristics of present epidemic not observed in previous visitations of yellow fever.

20th. Although perhaps not pertinent to the question, I will reply that I have had several cases of recovery from black vomit, one in an adult, the remainder in children. I have also noticed frequently (and that, generally, in mild cases) a rubeolar or vesicular eruption. It has appeared to me, that I have met with fewer instances of black vomit, in proportion to the number of cases this summer, than in previous visitations (1870-'73-'76). The principal immediate causes of death were such as to produce congestion, chiefly of the brain and kidneys.

21. Mention any striking differences in degrees of resistance to yellow fever poison, by different races or individuals.

21st. Of the 270 cases forming the subject of this report, 266 were among the white race; *three* of my patients were blacks, and *one* was a mulatto.

22. Mention any instances of second or third attacks, with dates of prior attacks.

22d. Several of my patients assured me that they had had yellow fever in former years, giving particulars, and the name of the physicians who had attended them. This seemed to be particularly the case with those patients who asserted that they had had the fever during the epidemic of 1867.

23. Mention any instances of *genuine relapse*, using the term in its strict medical sense.

23d. I have seen no case of *genuine relapse*, "using the term in its strictly medical sense."

Tabulated Abstract of Practice in Yellow Fever Epidemic of 1878.

		JULY		AUGUST		SEPTEMBER		OCTOBER	
	Ages Under	No. Treated	No. Fatal	No. Treated	No. Fatal	No. Treated	No. Fatal	No. Treated	No. Fatal
WHITE.	5	.....	.....	20	2	47	4	10	1
	5 to 10	1	.....	9	.....	38	2	20	2
	10 to 20	.....	.....	11	2	31	1	20	2
	20 to 40	1	.....	7	1	34	1	6	2
	40 to 60	.....	.....	3	.....	5	1	3	1
	Totals..	2	.....	50	5	155	9	59	8
BLACK.	Under 5	.....	.....	.....	.....	.....	.....	.....	.....
	5 to 10	.....	.....	1	.....	2	.....	.....	.....
	10 to 20	.....	.....	.....	.....	.....	.....	.....	.....
	20 to 40	.....	.....	.....	.....	.....	.....	.....	.....
	40 to 60	.....	.....	.....	.....	.....	.....	.....	.....
	Totals	.....	.....	1	.....	2	.....	.....	.....
MULATTOES.	Under 5	.....	.....	.....	.....	.....	.....	.....	.....
	5 to 10	.....	.....	.....	.....	.....	.....	.....	.....
	10 to 20	.....	.....	.....	.....	1	.....	2	.....
	20 to 40	.....	.....	.....	.....	.....	.....	.....	.....
	40 to 60	.....	.....	.....	.....	.....	.....	.....	.....
	Totals .	.....	.....	.....	.....	1	.....	2	.....

Total cases reported to Board of Health to date of this reply (October 13th, 1878)..... 270

Total deaths to date (October 13th, 1878)..... 22

Death rate.....0.081, say $\frac{8}{100}$.

Remarks and Explanations.

Having had my attention called to a statement made in the daily papers, that it was believed that more cases of fever had occurred this summer in the streets running from the swamp to the river than in those whose direction is parallel to that of the Mississippi, I analyzed the location of the 270 cases included in this report, with the following result:

Number of cases in streets running from swamp to river	181
Number of cases in streets parallel to Mississippi	89
	270

In explanation of the above it has been suggested that the greater number of cases in the cross streets may be due to the fact that malarial poison by following the gutters, may be at greater liberty to creep along the cross streets, advancing in a direct line from the swamp towards the river, whilst the smaller number of cases in the parallel streets may indicate, that owing to the angle at street corners, only portions of the main current of poison leaves the gutters of the cross streets, whence a lesser degree of poisoning of the parallel streets.

With regard to this point no comment is made, save that I have been interested in reading a paper with which you are doubtless familiar. I refer to an account of the Savannah epidemic of 1876, published by Dr. Le Hardy, in the Transactions of the Georgia State Medical Association for 1878.

In the controversy and investigation now pending, concerning the Department of Improvements of the City of New Orleans, with reference to the condition of the streets, hauling and dumping of garbage, etc., I see it is stated in the papers that the Administrator of Improvements donated 400 loads of garbage, which were used to fill the grounds of the St. Alphonsus Orphan Asylum, situated on St. Patrick street between Fourth and Washington streets. This Asylum is located immediately opposite a cemetery and is within a square of another large grave yard. I have been the physician of the Institution since its foundation, over two years since. It has a population, on an average, of about one hundred orphans.

Whilst wishing to avoid being drawn into the controversy now pending as stated above, I must say that the St. Alphonsus Asylum has given me but little employment professionally. Although situated far back of town I do not remember ever having treated a case of malarial fever within its limits, and this, although for a long time the grounds were low and badly drained, which defects have been partly remedied in the last year. This summer too, yellow fever did not make its appearance in the Asylum until the 20th September, when the first case occurred; from that time, to the date of the present writing, only four (4) cases have been observed at this Institution.

In common with all other physicians, I have been struck with the ravages of the disease among young people and children this summer. I have compiled the following table from my notes on the subject:

Cases to age of sixteen years inclusively	{ males,....	91
	{ females ..	95
Cases from seventeen years and upwards	{ males,....	36
	{ females ..	48

270 cases.

Females appear more liable to the descase than males, thus:

Total number of females attacked in my practice.....141
Total number of males attacked in my practice.....126

270

This epidemic has afforded me additional proof of the fallacy of the once popular notion (to which portions of our old Creole population still cling), that children born here are not liable to yellow fever. The experience of this summer, added to that already gained in the past, has convinced me that with regard to yellow fever, there is no safety, save in having had the disease, and that even this may not be absolute. Fancied security, based upon locality of birth, or long residence, has vanished before the stern reality of facts.

Of the 22 deaths reported above, there were, females.....12
" " " males.....10

22

This may be connected with the statement made higher, that the greater number of cases in my practice occurred in females.

I have studied the epidemic at the St. Joseph Asylum (under my charge), with a view of ascertaining whether or not the height of sleeping apartments above the ground played any part in the production of the disease. I obtained completely negative results as far as any proof was concerned that it is more dangerous to sleep near the soil. Thus, I observed 23 cases at the asylum:

	Second floor.	Third floor.
	10 cases.	13 cases.
I had, among the sisters		3 cases.
" " girls		6 cases.
" " boys		14 cases.

The sisters slept on the second floor, and the dormitories of the children were situated on the second and third floors. I was unable to account for the greater number of cases among the boys.

The treatment pursued was generally the following, although, of course, special indications called for special measures of relief. A mercurial purgative, when my action had not been anticipated by the friends, or supplemented by some other agent. Usually, a footbath was given.

I attached very little importance to hot drinks, employing, instead, seltzer water and ice freely. I took care not to cover my patients immoderately, and ventilated freely. Heat and dryness of skin were treated by frequent lotions with cool water, to which alcohol was added. For the same purpose, cool injections were also frequently used. I very often give a mixture with bromide of potassium and tincture of gelseminum, administering the latter boldly. The bromide appears to have an excellent sedative effect upon the nervous system, and to lessen irritability of the stomach. The gelseminum I regard as an efficient indirect diuretic. This year, and in former epidemics, I have used digitalis, aconite and veratrum viride; I prefer the gelseminum to all these. I fear the veratrum, *for it vomits*, even in small doses. It is undoubtedly the best of the series for rapidly bringing down the pulse, but I never found it of much avail in reducing the temperature, and the advantages of bringing down the pulse without corresponding lowering of the temperature, I considered as problematical, in view of the gastric disturbance I often saw it occasion.

I used but little quinine, and that only when cases were seen at the outset. I did not observe any good effects from it, on the contrary, I gave it up, because I thought it too apt to irritate the stomach. I respected the stomach to the best of my ability. Black vomit, present or threatening, was treated by blistering, effervescent draughts, ice, champagne, etc., etc. Once I tried ergot, hypodermically; I obtained no result. Congestion of the kidneys, and suppression of urine, were dealt with by the means familiar to all. Stimulants and nourishment were given as occasion suggested.

On an average, the temperature, at the outset, in my cases ranged between 103° and 104°. In the case of a child, at the St. Elizabeth Asylum, the temperature, soon after the breaking out of the fever, was 106¾°. By judiciously cooling the patient, it was brought down to 102½° in a few hours. Another of my patients at the St. Elizabeth Asylum, had a temperature of 108¾°, about two hours before her death. This was the highest temperature I observed during the present epidemic.

I remain, with great respect,

THOMAS LAYTON, M. D.

SUPPLEMENT.

Since this report was begun, I have had 16 new cases, and four more deaths have occurred in my practice. These furnish the following totals:

Cases, 286; deaths, 26; making the death rate, 0.090, or nine per cent.

Of the 16 new cases, 14 were white persons and 2 mulattoes.

Of the 16 new cases, 13 occurred on cross streets, and 3 on streets parallel to the river.

Of the 16 new patients, 11 were females and 5 males.

Among the four new deaths mentioned in this supplement, 3 were those of males.

With reference to their ages, the 16 new patients and the 4 deaths additional, rank as follows:

YEARS.	PATIENTS.	DEATHS.
Under 5	4	1
5 to 10	3	2
10 to 20	5	
20 to 40	2	1
40 to 60	2	
Total.	16	4

Respectfully,

THOMAS LAYTON, M. D.

October 16, 1878.

NEW ORLEANS, November 7th, 1878.

ROBERT D. MURRAY, ESQ.,

Secretary of the Yellow Fever Commission.

Dear Sir:—In reply to your communication of the 31st ult. (not received however, until yesterday), asking for a special table concerning the cases of yellow fever which I treated at the St. Joseph Asylum, at the St. Elizabeth Asylum and at the St. Alphonsus Asylum, I have the honor to submit the following report:

ST. JOSEPH ASYLUM.

35 Cases: 31 Children and 4 Sisters. 6 Deaths.

AGES UNDER.	AUGUST.		SEPTEMBER.		OCTOBER.		TOTAL.	
	Cases.	Deaths.	Cases.	Deaths.	Cases	Deaths.	Cases.	Deaths.
5	1		1	1	2		4	1
5 to 10			8		13	2	21	2
10 to 20	2	1	3		1		6	1
20 to 40					2	1	2	1
40 to 60			2	1			2	1
Total..	3	1	14	2	18	3	35	6

Death rate 0.171 or $10\frac{7}{100}$ per cent.

I respectfully refer you to my general report for details concerning yellow fever in this Asylum.

I will add, however, that of the 35 cases, 16 slept upon the second floor and 19 on the third floor.

Of the 31 children who had the fever, 9 were girls and 22 boys. I was at at loss to ascertain why the boys appeared to be singled out rather than the girls. The only reason which *may* point to an explanation lies in the

fact, that among the sisters who attended to the healthy girls, *none* had access to the sick; but *one* of the sisters who had charge of the *healthy* boys was also employed in watching the *sick*, from whom she would return to the *well*, without changing her clothing. This fact is submitted without comment.

ST. ELIZABETH ASYLUM.

I am not the regular physician of this institution, but I was requested to visit yellow fever patients there, during the illness of the titulary physician, Dr. Shepard, who was himself taken with the disease.

I am not acquainted with the date of appearance or origin of the fever in this establishment, nor do I know the total number of cases. I am, however, aware of the fact that there were cases in the house before I was called in, and that more occurred after I had turned the orphanage over to Dr. Shepard, upon his recovery. I can, therefore, only furnish data as to what took place whilst I visited the asylum. I had under my care 15 cases and lost 1 patient.

Ages.	SEPTEMBER.		OCTOBER.		TOTAL.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
10 to 20			13	1	13	1
20 to 40	2				2	
Total.....	2		13	1	15	1

Death rate, 0.066, or $\frac{6}{100}$ or 6 $\frac{6}{10}$ per cent.

ST. ALPHONSUS ASYLUM.

4 cases: 1 sister and three children. One death.

I refer to my general report for the health of this institution, and the filling of its grounds with garbage taken from the city dump.

We had no yellow fever until the 20th Sept., and our first case was a child who had been brought to the house only a few days before by the Howard Association. At the time of its admission, it was already unwell, and both of its parents had recently died of yellow fever in the city.

Ages Under.	SEPTEMBER.		OCTOBER.		TOTAL.	
	Cases.	Deaths	Cases.	Deaths.	Cases.	Deaths.
5	1		1		2	
5 to 10	1			1	1	1
10 to 20			1		1	
Total.....	2		2	1	4	1

Death rate, 0.25 or $\frac{1}{4}$.

I remain, with great respect,

THOMAS LAYTON, M. D.

II.—APPENDIX TO HISTORY OF YELLOW FEVER IN NEW ORLEANS.

Testimony of Dr. J. P. Davidson, of New Orleans, on Yellow Fever.

Question 1. What is your profession?

1. A practitioner of medicine.

Ques. 2. How many years have you practiced medicine.

2. I have practised medicine from 1832 to the present time—forty-six years.

Ques. 3. How long in New Orleans?

3. From 1832 to 1837, and subsequently from 1865 to the present time —1879.

Ques. 4. How many epidemics of yellow fever have you witnessed in New Orleans.

4. The epidemic of 1831, 1832, 1835 and 1837. 1867 and 1878.

Ques. 5. How many epidemics have you witnessed in other places?

5. 1847, 1853, 1855, and 1858, in the town of Alexandria, parish of Rapides, La.

Ques. 6. What marked difference have you observed in various epidemics, either in New Orleans or elsewhere? State date and locality of epidemic in connection with any report of differences in various epidemics, which you may think proper to make.

6. In the earlier epidemics witnessed by me, both as an interne of the Charity Hospital, and subsequently, while a practitioner, the type of the fever was of an inflammatory character, as contra-distinguished from the adynamic and conjestive form of later epidemics, notably of the epidemic of 1867 and 1878. In the town of Alexandria, the epidemics of 1847, 1853, 1855 and 1858, were characterized by cerebral inflammation, and hemorrhages, and were very fatal, more particularly those of 1853, 1855 and 1858. In the two last the negroes on the plantations suffered quite as much as the whites, an unusual occurrence in that race, and the mortality was relatively as great amongst them. I think a larger proportion of blacks suffered with hemorrhages than among the whites.

Ques. 7. What are your facts or opinions respecting the origin of each of the various epidemics you have passed through?

State explicitly facts or opinions, which determine whether any of the epidemics were due to importation, and whether in any, the poison originated *de novo*, or after protection and survival through the preceding winter?

Also classify the various epidemics you have witnessed, in respect to origin.

7. The epidemic of 1831 was occasioned by the influx of citizens of Mexico—expelled from that country on the invasion of an army under General Baradas—the last effort on the part of Spain to recover authority over the colony. These expelled royalists reached New Orleans from Vera

Cruz, where the vomito was prevailing at the time of their banishment. The epidemic began in the month of September and was very fatal and malignant.

Without having any recorded facts before me to which I can refer, my impression is pretty clear that almost every epidemic was traceable to importation.

It is certain that sporadic cases of yellow fever have occurred annually in New Orleans, and doubtless due to to the survival of the special cause of the disease. Under a particular constitution of the atmosphere, arising from a combination of influences, presumed to be "barometric pressure; moisture, elevated solar heat, maintained for a long period, high dew point, or certain electric condition and deficiency of ozone," together with the greatly neglected sanitary condition of the city—it is very probable that the germs of yellow fever surviving the winter, may give rise to an epidemical prevalence of the disease. My belief is, however, that notwithstanding the preservation of the special cause, as above stated, importation of cases of fever tend more certainly to develop an epidemical influence.

In the history of yellow fever epidemics from the earliest days, it has been remarked, that a certain epidemical influence in the air, however produced, aids the propagation of the special cause of the disease when introduced into it, while it is certain that all the factors previously mentioned as combining to favor an epidemic, will not of themselves, produce yellow fever, if the special cause be absent. This fact will doubtless account for the escape of many places in all epidemical years, when cases of fever have been introduced there without its spreading. Thus I have known the fever to prevail epidemically in Alexandria, when other neighboring towns escaped.

In all the epidemics witnessed by me in Alexandria, they could be traced directly to importation from New Orleans, usually by persons and families arriving by steamboats.

Ques. 8. What do you consider the best method to be adopted for prevention of yellow fever epidemics in the future?

8. As applied to the city of New Orleans,—more particularly—sanitary improvements thoroughly carried out in every essential; drainage; flushing the gutters daily with river water; cremation of all decomposing animal and vegetable matter; distribution of pure, filtered water; dispensing with the present system of water closets; and a quarantine so administered, as to exclude any new importation of the disease.

Ques. 9. Give as briefly as possible, your opinion respecting quarantine; considering especially its efficiency as a barrier against yellow fever, if perfectly executed, and the feasibility of securing its workings so as to result in success.

9. I have always doubted the feasibility of quarantining yellow fever, by the system heretofore in practice, if indeed a perfect barrier can be devised, so as to prevent the introduction of the disease. I am in favor of

a system of general quarantine laws, enacted by the general government, so as to make quarantine as strict and efficient as possible on the part of all ports into which yellow fever is liable to be imported. The test as to the possibility of excluding yellow fever should be made and to determine whether or not New Orleans has become a habitant of the disease.

Ques. 10. Mention any other points relating to cause, origin, spread and prevention of yellow fever not included in above.

10. To my mind, nothing seems more important than to ascertain the atmospheric condition absolutely necessary to propagate yellow fever when its special cause is introduced; and how far, if ascertained, these conditions may be modified. Unquestionably, the sanitary condition of a city or town has very much to do with creating the prerequisites of an epidemic. The condition of Shreveport was peculiarly favorable for the propagation of the special cause in 1873. And so was that of Memphis in the same year; while in 1853, notwithstanding the introduction of a large number of cases through refugees from New Orleans, no epidemic ensued. In both Shreveport and Memphis, in 1873, the epidemic was occasioned by the introduction of only one or two persons ill with the fever.

Improved sanitary condition, doubtless, mainly preserved Mobile from an epidemic last summer, notwithstanding the occurrence of quite a number of sporadic cases. To what cause other than the want of an epidemical atmospheric constitution can we ascribe the escape of New Orleans, in 1870, '71, '72, '73, '74, '75 and '76, in all of which a number of sporadic cases occurred without the disease spreading and becoming general?

The fever in 1873 was due, in my opinion, to importation on board of the brig Valparaiso, in the immediate neighborhood of which I attended five cases. There were, as well as I can remember, at least 250 cases in a small area near where the Valparaiso was moored, and yet no epidemic ensued.

The chambermaid on board the steamboat Bryerly sickened with yellow fever on the way up to Shreveport, was landed and taken to Drs. Allen & Fenner's private hospital, where she died either the same day or the day afterwards. This was before the outbreak of the epidemic of 1873, and her case, I think, may be traced to the focus of the fever near the Valparaiso. Mrs. Gen'l Hodges was a passenger on the Bryerly, and frequently visited and attended to the wants of the chambermaid. Landing at Shreveport, she did not linger there any time, but proceeded to her residence, some eight or ten miles from Shreveport. She sickened a day or two afterwards and died of black vomit. Her son, who nursed her, shortly afterwards died also of yellow fever.

The epidemic of 1878 has been ascribed to the cases of Elliott and Clarke, brought to New Orleans sick on board of the Emily B. Souder. This may or may not be correct, but why disregard the fact that repeated cargoes from vessels arriving from infected ports were discharged on the

levee opposite the Fourth District. This part of the levee, it is well known, is the favorite afternoon promenade of a great number of children, their nurses and other persons, and particularly of a Sunday afternoon. It is true the vessels and cargoes had undergone disinfection at the Quarantine station, but can we feel assured that all infection was done away with?

The proximity of the street on which the first cases appeared to the levee, where steamers plying between this port and Havana discharge their cargoes, and the frequent visits of the residents of that quarter of the city to that portion of the levee may well lead one to presume the possibility of transmission through fomites. In carrying out a system of strict quarantine for the future, the removal of cargoes of vessels from infected ports and exposing them to free ventilation, after having been thoroughly disinfected on board ship, strikes me as a precaution of the utmost necessity.

Typho-Malarial Fever.

By I. J. NEWTON, Jr., M. D., of Bastrop, La.

[Read before the Morehouse Medical Society, June 4th, 1883.]

The subject for discussion to-day is one of great importance to the members of this Society and to all who practice in malarious districts.

A subject to which already much attention has been given, and a disease that perhaps has been in existence as long as any other of malarial causation. As far back as the seventeenth century, Cullen described under the title of "Synocha" a succession of symptoms greatly resembling this disease.

More recent American authors, notably Drs. Wood, Drake, Woodward and Aitken, have called attention to the commingling of the symptoms of enteric and malarial fevers.

It is to Dr. J. J. Woodward, the credit is due for the introduction of the phrase "typho-malarial fever," to be seen in his "Outlines of the Chief Camp Diseases of the U. S. Armies," 1863. The treatise was in reference to a disease affecting, especially, the soldiers camping in the

Chickahominy swamp, near Richmond, which attracted much attention at the time, and was termed "Chickahominy or mountain fever."

The weight of authority, so far as evidence is obtainable, tends to show that this fever was an *irregular* type of true typhoid fever.

Taking into consideration the well established fact that enteric fever, save as to pathology, is never a constant entity and that the disease was operating (to use the language of Dr. Clymer), "amongst men camping in a malarial district, saturated with paludal poison, exhausted by over-exertion and insufficient rest, imperfectly nourished, exposed to the action of animal effluvia from the decaying bodies of both men and brutes, and drinking water impregnated with the products of common putrefaction;" it is not a remarkable occurence, at least in my opinion, that amongst these soldiers there should *co-exist* enteric and malarial fevers, without evidence that the diseases were *blended*, thereby making one of special type.

At the International Medical Congress at Philadelphia, in 1876, Dr. Woodward presented a second article upon this subject, under the title: "Typho-Malarial Fever. Is it a Special Type."

This article I have not seen, but in it, I have understood, the author advocated the theory of the *blending* of the two diseases, denominating it as a special type. Since the promulgated views of this latter author (Dr. Woodward), the medical journals of the country have offered for our consideration many articles upon this subject, some for, others against the views expressed by Dr. Woodward.

The advocates of the theory that the fever is a typhoid and a malarial fever prevailing at the same time, in the same patient, so modifying each other as to produce a fever partaking of the character of both, are in a minority, at least as applied to the disease as *now seen* in all malarial districts.

In fact, recent literature upon this subject is so decidedly in favor of the opinion that the so-termed typho-malarial fever is only an ataxic or continued malarial fever, and

that the term typho-malarial is both mischievous and incorrect technology, having nothing in pathology to justify its adoption; it would seem useless to consider the subject as yet *sub judice* or requiring any other literature upon this disease as refers to it and true typhoid fever.

This is only an apparently settled point, for there yet exist great differences of opinion among physicians as to whether this affection is essentially a typhoid or a malarial continued fever.

The object of this paper is not so much to enter upon a full or critical inquiry as regards priority of description, the various contributions upon the subject, or to call attention to the authors who have, either incidentally or more or less fully recognized the true character and nosological status of this disease, as will be the effort to bring about a better understanding of the disease, but will point out any important discrepancies or omissions in its history by the several authors who have written concerning it.

The disease now known as tpyho-malarial fever, until within the past few years, has never appeared, with but few exceptions, in our systematic treatises on medicine, as a separate and distinct disease.

Several of the more recent authors who give accounts of it adopt the theory, and largely quote from the article of Dr. J. J. Woodward.

In my opinion, typho-malarial fever has a malarial causation, differing from the graver types of remittent or bilious fevers, in the fact that in the former disease, the malaria more profoundly attacks the nervous system, causing great vital depression, and in consequence of special influence over certain plexuses or ganglia, causes the development of *local disease secondary to and produced by* the general malady.

To recapitulate, we find that the so-termed "typho-malarial fever"

(1) Is of malarial causation.

(2) There is developed, secondary to the primary malady, local affections, which may be:

(3) Either functional or anatomical in nature.

(4) The periodicity usually common to non-complicated cases of malarial fever *ceases when the secondary diseases are developed.*

(5) The symptoms are modified by the secondary local affections.

(6.) The local affections are inconstant as to anatomical locality, time of appearance, intensity, etc.

(7.) The "typhoid condition," so common in this disease, is caused by, and is largely dependent upon the local secondary affections.

(8.) That these secondary complications are especially concerned in indicating the proper treatment of this disease.

From the foregoing it will be seen that this affection *deserves* to be considered in our treatises on medicine, as a separate and distinct disease, not as a *peculiar type*, but rather as one of the multitudinous phases that malaria has the power to assume.

The true character of this disease was perhaps more fully recognized by Dr. Wood than any other of our late authors. Yet he did not seem to fully fathom it.

Referring to his work on practice as far back as 1858, under head of remittent or bilious fever, we find the following language:

"In not a few cases, instead of following either of the courses above indicated, the disease somewhere from the ninth to the twelfth day takes on a *new character*, very much resembling that so frequently met with in enteric cases." Then, after giving symptoms, etc., he says, of favorable cases: "Gradually, however, the system regains strength, the mischief done to the various organs is repaired, and health is at length well established." It is difficult to infer what here is meant by *mischief done* to the various organs, but, in my opinion, the idea or conviction of Wood, would have been carried out if he had said, "the mischief done to the various organs *by the local secondary affections* is repaired," etc.

Notwithstanding this reference by Wood to a peculiar character of malarial remittent fever, the advocates of the theory of a *true blending* would have us to believe that Wood long ago saw and published his conviction to that effect.

The language of Wood, from which the above inference was drawn, is this: "It is true that there are cases of remittent fever, which at certain periods of their progress, are not readily distinguishable from the enteric. Such, especially, are those in which bilious fever assumes a typhoid form in its advanced stages. But it is not impossible, and, as it appears to me, not improbable that the *two diseases sometimes co-exist.*" Here, no doubt, it was Wood's intention to convey the same idea that would have been inferred if he had said, that in a given case of typhoid fever, during its progress, the patient had been attacked with *measles;* or, in other words, a mere co-existence, but not a *blending* of two diseases.

Drake says, in speaking of this disease: "At different times our valley has been visited by an epidemic constitution of the typhous kind. The effect of such an atmosphere is to convert our remittent into a continued fever, or at least to give it a set in that direction. This complication of *two diatheses* greatly increases the difficulty of treatment: for neither the copious detraction of blood, nor the liberal exhibition of quinine is apt to prove beneficial in such cases."

It is evident here that Drake, though he did not recognize in connection with the primary malady, the extreme vital depression and the existence of *local secondary* affections, yet he recognized the fact that the disease was not true typhoid fever: for he is careful to state that the complication of the two diatheses—not the two diseases—challenged his inquiry, or, in other words, he was at a loss to account for the change of a remittent into a continued fever of a typhous nature. Drake offered for this affection the name of "remitto-typhus." Wood, that of "entero-miasma-

tic,"—some very recent writers suggest, that of "malarial continued fever," which is prehaps the least objectionable of any. It is a disease common in malarious regions, being much more prevalent in the Southern and Middle, than in the Northern States.

Though it may occur at any season of the year, it is generally more prevalent during the autumnal months. The mode of attack and the initiatory symptoms of typho-malarial fever present great variety, though as rule the invasion is sudden and well marked and clearly terminated by a chill. The nervous depression being peculiarly great, even from the beginning of the attack. So profound and peculiar is this vital depression, that in many cases, even before secondary local complications arise, the disease can be diagnosed as that of typho-malarial fever.

More commonly, however, the symptoms in the beginning of the attack, with the exception of this great nervous disturbance, are similar to those of the severer forms of remittent or bilious fever.

This stage, is destined to be soon interfered with, and after a variable lapse of time, usually from three to nine days, the secondary local affections present themselves.

It is in this stage of the disease, enteric fever is so frequently confounded with the former affection.

The grade of the disease will depend upon:

1st. The greater or less violence of the primary malady.

2d. The character, locality and severity of the secondary affections.

3d. The state of system at the time of attack.

After the appearance of the secondary affections, the symptoms will be variable indeed, being modified by the character, locality, intensity, etc., of said secondary affections.

Common to all attacks, however, is the condition denominated the "typhoid state." This condition being caused by the poisoned blood acting on the nerves and brain, depresses the nervous centres and diminishes the activity of the secretory and excretory glands. The blood

poison, otherwise than the miasmatic, it is believed, is the accumulation in the blood of the nitrogenous products of disintegration of the tissues.

This peculiar condition being familiar to all, as seen in this or other diseases, I will not enumerate symptoms, etc.

Other symptoms, deserving mention, will be notified in connection with causes that give rise to them.

In considering the secondary affections of this fever, we will notice, first, those of a functional character, without necessary or existing organic change. All organs of the body are liable to these functional disturbances, and any of the functions may be interrupted or modified.

Cough and rapid breathing will be found without anatomical lesion in the lungs; or we may see tenderness of the abdomen, even so great that the weight of the lightest fabrics cannot be borne, and yet not be a peritonitis, gastritis or other anatomical lesion; functional disturbances of the brain, liver, spleen, stomach, etc., will be met with in other cases.

The functional disturbances, *secondary to*, but produced by the primary disease, constitute one class of the malady. Another class, and the more common, are those in which *there is* special anatomical changes secondary to the general affection. To this class also belong the more malignant forms of the disease.

Perhaps the most frequent complication in this affection will be found in the lungs. But the exact character of the lesion is difficult to determine. When the mucous membrane is the part affected, the symptoms in many respects indicate the condition; that of an hyperæmic and irritant state, and in some respects that of an irregular type of pneumonitis.

Next in frequency, anatomical changes are to be found in liver and in the mucous or serous coats of stomach and intestines. Here, also, symptoms may indicate engorgement and irritation, or true inflammation.

In the serous structures, frequently the tympanites and tenderness are so great, that it is difficult to determine

whether or not peritonitis exists. And I have seen cases in which peritonitis did exist, and was produced without ulceration or perforation in any portion of the intestinal tract.

The mucous membrane and glands of the large bowel are especially liable to secondary changes, involving anatomical lesions, and it is doubtless, when the complications here exist, that the disease is most liable to be confounded with true typhoid fever, for when here located, we may have in the glands both ulceration and pigment deposit: here also, is the usual site of hemorrage in this affection, the rule of constipation also is changed and we have a diarrhœa, differing in character from that of typhoid fever.

Anatomical changes may also occur in brain, heart or other organs of the body.

The diagnosis of typho-malarial fever, as to the existence of typhoid fever in my opinion, with but few exceptions, need not be difficult. The most important feature in the diagnosis of this disease is to correctly determine the character, intensity and locality of the secondary affections.

It is also to be distinguished from remittent or bilious fevers, from rheumatic and kidney affections, and from non-malarial gastric remittent fever: from the latter especially when the patient is a child.

Owing to the fact that this affection is most frequently confounded with typhoid fever, it will be necessary to go more into detail as to the differential diagnosis, and I know nothing more decisive to offer than the following quotation, the author of which I cannot now remember:

"Indeed, when one analyzes the facts in connection with typhoid fever and the so-termed typho-malarial fever, they seem especially antagonistic and in no respect similar. The period of incubation, the mode of invasion, the thermometric curves, the gland lesions, the site of hemorrhage, the cutaneous phenomena, the element of periodicity, the geographical distribution, the amenability to treatment, stamp the two diseases as radically and absolutely distinct.

There is, it is true, an adynamia and asthenia observable in the so termed typho-malarial fever, and this simulates in some respects the debility and prostration seen in typhoid fever; but if this be the solitary basis for the claim of this modern name, the term or prefix typho may as well be used in all cases of both symptomatic and idiopathic fevers attendant with marked debility."

A very common manner, as dangerous as it is erroneous, to diagnose true typhoid fever from this affection, is in the administration of quinine, which, failing to reduce the fever and bring about a cure, the fever is considered to be a true typhoid, and will in defiance of treatment so develop.

The source of error is evident.

After the development of secondary lesions in typho-malarial fever, there are perversions of secretions, diseased eliminations with frightfully rapid march, that *cannot* be controlled by quinine, but on the other hand may act harmfully. Therefore, quinine has no diagnostic value in differentiating between this affection and typhoid fever, but is valuable in directing our attention to the necessity for ascertaining where and what is the local secondary affection. The prognosis is generally favorable. It is in those cases where the secondary affections involve anatomical changes, and are attended with a low or typhoid state of the system, that are most likely to prove fatal. Death taking place:

1st. From depression of all the vital forces.

2d. From causes directly due to the secondary diseases.

You will readily perceive from the foregoing views expressed, that in the treatment of typho-malarial fever, I have no specific or routine treatment to suggest. In considering the treatment proper to these cases it will be well to remember:—

1st. That we have to deal with a malarial fever of low grade, with marked nervous depression from the beginning.

2d. The development of local secondary disease, produced by the primary malady.

As a general rule, the malarial element in these cases can be better relieved without the use of quinine, unless used *very early* in the attack, or after convalescence is secured.

As a substitute for the peruvian alkaloids, I would suggest the administration of arsenic, in the form of Fowler's solution, which may be given even when there exists dry tongue with heavy coat, tympanites and diarrhœa.

Constipation in the beginning of an attack is best relieved by a few doses of calomel and bicarbonate of soda; later in the attack, this trouble is best relieved by the simple syrup of rhubarb.

High temperature, in cases where there is not much gastric irritation, may be reduced by administration of salicylic acid, cold sponging and injections of ice cold water; but if there exists much gastric disturbance, leave off the acid.

Fever in the earliest stages may be reduced by swt. spts. nitre and tr. aconite, but in the latter stages of the disease it is more of a symptomatic nature, and is best treated by sponging and cold injections, with proper treatment for the direct cause. Refrigerant diaphoretics are, as a rule, required from the beginning. I prefer the spts. mindererus, combining digitalis with it whenever there exists a weak and feeble heart.

In gastric irritability, tongue pointed and red, with white fur in the centre, with a not very high temperature and no evidence of any other anatomical change, one or several doses of calomel and bi-carb. soda to correct disordered condition of gastric duodenal mucous membrane, and swt. spts. nitre (with one or two drops tr. aconite at dose if needed) to reduce pyrexia, revulsives of mustard over epigastrium once or twice daily, with hot foot baths and cold sponging to head and arms, repeated *pro re nata*, and quinine afterwards, will generally relieve the patient.

Where the tongue is very red and dry, and if denoting much inflammation of the bowels, turpentine or chlorate of potash internally and turpentine stupes over the abdomen are perhaps the best remedies. I have used these remedies when bowels were enormously distended, tongue dry, red and pointed, with decided and rapid benefit.

Where tongue is dry and heavily coated, fifteen to twenty drops of the dilute muriatic acid should be given every three or four hours.

Alcoholic stimulants are required in almost every case, after the development of secondary lesions of anatomical character, and is especially of benefit in delirium, due to brain irritation. To control nervous symptoms and procure rest, where alcohol proves insufficient, a combination of bromide of potash and hydrate of chloral, or Squibb's fluid extract of lupulin, will be found remedies of great value.

Thirst, best relieved by pellets of ice, by milk-whey, or (preferable to either) iced butter milk.

Diet to be governed by circumstances; milk and beef-tea as a rule most frequently required.

Diarrhœa, treated as to its cause. Dover's powders, pills of opium and sugar of lead, and aromatic sulphuric acid, are remedies most frequently required in the diarrhœal troubles.

Symptoms denoting nerve failure, call for strychnia and nitric acid.

Intestinal hemorrhage when occurring, is always from large bowels and is best treated by internal use of spirits of turpentine, and hypodermic use of ergotine; enemas of sugar of lead and tannin sometimes needed.

Having thus directed your attention to the therapy indicated in some of the conditions, more or less common in all cases of this fever, I will close without going into details, as to treatment of the several local complications that characterize this disease, but will recapitulate some of the more important pathological conditions, with which, in the treatment of this affection, we have to deal.

1st. Functional affections without recognizable anatomical changes occurring in any organ of the body, but much more frequent and important in the nervous system.

2nd. The existence of anatomical lesions, secondary to, and produced by, the primary disease, modifying symptoms, duration and treatment of the malady.

3rd. The seat of these complications may be in mucous or serous membranes, in muscular structures, as of heart and lungs, or in other tissues of any of the organs of the body.

4th. With a correct understanding of the relationship in each particular case, between the primary and secondary disease, the treatment will readily suggest itself.

In the foregoing expressed views, in my opinion, we have the correct character and status of typho-malarial fever. I claim no originality in bringing them forward, my desire being to bring about a better understanding of this affection than would seem now to be obtainable from the various treatises on medicine at our command.

TRANSLATIONS.

GAMBETTA'S EYE.

By Dr. Cuenca Creus.

(Translated by A. McShane, M D.)

[The following extract from the letter of a Parisian correspondent to the Cronica Oftalmologica, of Cadiz, will doubtless prove interesting to most of our readers, in view of the curiosity frequently exhibited in the discussions of the medical and lay press, in regard to the nature of the visual defect that afflicted the great French statesman.]

* * * * * *

I desired to know the truth concerning the extraction of the eye of Gambetta; none could better inform me than

Baron de Wecker, of the causes, course and termination of the disease. This skillful operator and eminent oculist was called upon to extirpate the right eye of the celebrated orator.

I refrain from expressing the delicacy and amiability with which M. de Wecker complied with my request, minutely detailing to me his friendship with Gambetta, from its beginning when the latter was a mere attorney, and its continuance even when he became absorbed in his political duties.

It was in the spring of 1867. M. Leon Gambetta, accompanied by Dr. Fieuzal, presented himself at the office of Dr. Wecker. The latter, after questioning his patient concerning the causes of his suffering, soon learned that when a child, he happened to be in the workshop of a turner, where he observed the artizan's work so closely, that an instrument that accidently flew about, struck his eye with disastrous effect.

Examining the affected organ with the lamp, he found the vessels of the anterior part of the eye so much enlarged by chronic engorgement that the successful closure of the lids was impossible. Furthermore, the blow inflicted in childhood had gradually determined the formation of a traumatic cataract, and subsequently caused the enormous distension of the globe which it presented at the examination.

The nature of the trouble having been decided, it was determined to enucleate the right eye before a greater danger would threaten the integrity of its mate.

Upon announcing this decision to the patient he consented calmly and resolutely to the performance of the operation.

Four days afterwards, M. Gambetta and his friend, Dr. Fieuzal, presented themselves at the office of Dr. Wecker. The latter, with the aid of his first assistant, Dr. Borel (of Ruan), proceeded to extirpate the eye-ball; this, when removed was pear-shaped, and measured five centimetres in its antero-posterior diameter.

Gambetta had borne the anaesthetic without the least inconvenience; he went to sleep quickly, and during the operation they did not observe that anguish and excitement that is frequently displayed by patients during the incipient stage of anaesthesia.

* * * * * *

At the end of three days the patient was on his feet again.

In order to complete the cure, Dr. Wecker, continued his visits to Gambetta at his residence in the Rue de Bonaparte.

The esteem, the almost fanatical affection of the friends, who watched and ministered at the sick man's bedside attracted the attention of Dr. Wecker, who, recollecting the energetic character and resolution that he had exhibited at the first examination, thought that Gambetta would some day be called upon to play a conspicous part in the political history of France.

He made the same remark to the celebrated histologist, Dr. Iwanoff, when he placed the eye in his custody and recommended him to zealously care for it on account of the person from whom it came.

We have already seen how this prophecy was fulfilled, and that Dr. Wecker was versed in other matters besides oculistry.

* * * * * *

The right eye of Gambetta was replaced by an artificial one. In order to select it, it was necessary to manufacture eighty specimens until no difference between the eyes could possibly be detected.

The enucleated eye was submitted to careful anatomical preparation and histological examination. Doubtless it figures to-day in the cabinets of the University of Kieff.

There are, however, some who assert that when Dr. Iwanoff died, the eye passed from his anatomical collection into the hands of his pupil, Duke Charles of Bavaria.

This Prince also honors the science of Æsculapius, which he professes with as much brilliancy as his brother, Prince Louis Ferdinand, the political brother of the King of Spain.

TWO CASES OF HASCHISCH POISONING.

By Dr. Gustave LeBon.

[Translated for *N. O. Med. and Surg. Journal*, by R. Matas, M. D.]

Haschisch has been studied scientifically by various authors, but some of the most remarkable features of its toxic action have been overlooked, and prominent among these, to my knowledge, at least, is the analogy that exists between certain effects produced by this substance and

those determined by artificial somnambulism,—i. e., the remarkable duplication of the individual personality.

It is known the world over that the basis of haschisch is an extract prepared from cannabis indica; but it is not so generally known that this substance is mixed in the East with various others which greatly modify its properties, such as nux vomica, ginger, cinnamon, and even cantharides.

The specimens that I bought at the Grand Bazaar at Cairo, in a shop exclusively devoted to its confection and sale, are dispensed in various forms, but notably in the shape of lozenges and variously colored candies.

Haschisch undoubtedly plays an important part in orien tal life. An Arab who contemplated me with a jealous eye as I was providing myself with a goodly quantity of this preparation, pithily described its effects in these words: "It makes one happy." In fact, with this drug the most miserable fellah may procure such an elysium of bliss that when once under its influence he would not exchange his fate for that of the mightiest monarch. Thanks to this beneficent product, he is allowed to resolve the difficult problem of bottling happiness in a phial and keeping it in readiness as occasion demands.

The effects of haschisch depend a good deal upon the actual condition of the experimentalist. I believe its psycological action, when taken in ordinary doses, may be summarized by saying, that it prodigiously exaggerates the ideas that are elaborated by the mind giving them an intensity that confounds them with reality. The subject who, at the time of taking this drug, finds himself in a pleasant, genial disposition, will soon find himself plunged in a reverie full of agreeable visions, all related, however, to his habitual thoughts. It is in this way that the oriental *habitue* who indulges his haschisch, in the languid and voluptuous atmosphere of the harem, surrounded by his women, soon believes himself transported to the celestial regions, where, in the midst of the *houris*, he enjoys the pleasures of Mahomet's marvellous paradise.

The effects just described are undoubtedly the effects of haschisch in ordinary doses. Those determined by exaggerated or toxic quantities, and which I will now describe, are altogether different and, I believe, have never been previously studied.

The subjects of the following observations were two ladies who, prompted by curiosity, called at my residence to examine different objects collected during my travels through the East, and who mistaking for *bon-bons* the haschisch preparations that I have already described, unwittingly swallowed a good number of these dangerous confections.

The dose ingested by one of these ladies was seven or eight times larger than that usually prescribed in Egypt, and which I cannot exactly estimate on account of the variable quantity of the components in each preparation. I know only, by various circumstances, that the quantity taken by the first of these persons was less potent than the other, and was four or five times larger than the regular dose.

The first of the patients so unexpectedly placed under my charge, is a young lady of distinguished birth and excellent education. In her normal state she is cold, ceremonious and reserved. About fifteen minutes after taking the haschisch, she complained that her head felt heavy, laid down upon a lounge, closed her eyes and immediately plunged into a dream of few minutes duration, and of rather light character. Suddenly she roused herself, as if she had been asleep, and began to walk about the room as she related the incidents of her dream, with a freedom of language and expression that was altogether astonishing to me, as it was so foreign to her habits and position; she then sat down again and began to converse with me with her eyes half closed. I quickly perceived, by certain signs, that she was in that particular state that frequently determines induced hypnotism. She has lost all consciousness of her personality, and spoke of herself in the third person, as if alluding to a stranger. Her intelligence was most vividly excited, and the brilliancy of her expressions, as well as the fluency of her speech, were altogether remarkable. Though very insincere in health, she now answered frankly and unhesitatingly to all the questions propounded to her, even in regard to those matters which she would have had the greatest interest in concealing. This state lasted about a-half hour, after which she rose up, walked about and returned to the normal state; immediately her voice changed, her conversation lost its vivid and impetuous tones; she spoke no more of herself in the third person, and finally, with a good deal

of amazement, asked an explanation of what had happened to her. As I did so, I endeavored to return to the topics which had formed the theme of the previous conversation, but she stopped me at the very first words in a ruffled manner that plainly denoted her displeasure. At the end of about fifteen minutes she lapsed again into the unconscious state with great mental excitement and utter inability to conceal her thoughts. These alternations from the hypnotic to the normal state were repeated and prolonged for three hours. Whenever she would regain her self-possession she would pass her hand over her forehead, stop suddenly in the midst of conversation, and alter her voice completely, as well as her manner and mode of thought. On the second day, however, she became aware, during the hypnotic paroxysms, that she was not in her normal state, and recognized the illusion of her double personality—one constituted by her *ego* conscious and obedient to her will, and the other by her *ego* unconscious and unaffected by her volition. Nothing, indeed, was more curious to observe than the alternate succession of these two individualities, so distinctly unlike, and yet manifested by one and the same person.

The second subject of my involuntary experiment was a phlegmatic English lady of average intelligence, but possessing a good *quantum* of characteristic Brittanic stiffness. The observed phenomena were from the incipiency identical in part to those of the preceding case. I noticed in the beginning a short sleep with agreeable dreams, followed by an apparent wakening with hyperæthesia of the intellectual faculties and loss, or at least an alteration in the individuality. The habitually lofty madam was suddenly transformed into a bantering, agressive and decidedly light spoken female; at the slightest provocation she would burst out with boisterous peals of laughter which I had not noticed in the preceding case. This state was uninterruptedly kept up for half an hour, after which she would fall again into the state of double consciousness, as already described, in which she revealed, without the slighest hesitation, her most intimate thoughts and hidden secrets upon all the topics that were subjected to my interogation. She even indulged with her intoxicated friend, in a half hour's conversation which I directed at my pleasure; the reflections, ideas and thoughts exchanged between these two unconcious subjects, whose minds were intensely excited and who spoke of themselves as strangers, were extremely and peculiarly interesting.

Unfortunately, the dose of haschisch absorbed by this was considerably stronger than that taken by the other patient, who was, besides, of a much more robust constitution; so that at the end of three hours the toxic symptoms were gradually manifested and in fact assumed such a grave aspect (repeated vomiting, coldness of the extremities, coma, absence of pulse, etc.), that I feared every instant that she would die.

My embarrasment was great, because knowing as I did, but very imperfectly the composition of haschisch, I could treat nothing but the symptoms. After aiding the efforts at vomiting in order to expel the remnants of poison that might remain unabsorbed in the stomach I met the continued tendency to coma by large and frequently repeated doses of coffee. But that which succeeded best against the patients' progressive coldness, an element, *per se*, of great gravity in many pathological states was the steady employment of heat. It was not until after the patient had been exposed to the heat of an exceedingly bright fire, that the circulation became perceptible and was followed by a natural return of peripheral warmth. Finding herself exceedingly annoyed by the warmth of the hearth, she asked to be moved a further distance; but no sooner had this been done than the toxic phenomena set in again and it became necessary to approach her closely to the fire. After two hous of uninterrupted attention at her bedside and after she had drank eight cups of coffee, she found herself greatly improved and was soon able to return to her residence. The next day she was completely returned to her normal state, and the pathological disturbances observed for two consecutive days did not re-appear.

* * * * * *

The two observations just narrated appear to me quite interesting, if only from the psychological standpoint. No substance is known, up to date, that is capable of producing upon the nervous system, effects analogous to those observed in artificial sonambulism; and even if we consider these cases purely from the practical standpoint, it is not valueless to know the properties of a product, which, in some serious and obscure cases of medico-legal practice, may be utilized in order to extract the truth of suspected individuals, who may or may not be guilty of crime—thereby avoiding grave judicial errors.—*Journal de Medecine*, Paris.

RESECTION OF THE STOMACH.

Extracts from a Paper by Dr R. Troquart.

(Translated for *N. O. Medical and Surgical Journal* by R. Matas, M. D.)

As early as 1810, Karl Merrem, proposed the operation of resection of the stomach and pylorus, and performed some experimental researches to justify his assertions, which, however, received no attention and were not renewed.

Much later, in 1876, Gussenbauer and Von Winniwater, repeatedly performed the same operation upon dogs, but with indifferent success: the results obtained by their followers, Czerny and Kaiser, were however, much more satisfactory.

Finally, in April, 1879, M. Pean, ventured the performance of this operation upon man. The patient suffered with a malignant tumor of the pylorus; laparotomy was performed, the stomach and intestines were lifted out of the abdomen and the tumor excised. An apparently favorable reaction took place, but depression followed, and the patient after lingering five days, succumbed.

Rydiger (of Kulm), made a second attempt but with still more unfortunate results, his patient dying 12 hours after the operation.

It is only since the success achieved by Billroth, in October, 1880, that pylorectomy acquired its position as a legitimate surgical procedure. In this instance, the patient afflicted with an extensive carcinomatous infiltration of the stomach rallied completely after the operation. At the end of four months, she died, but this was due to a secondary deposition of the neoplasm, a cause altogether independent of the surgical procedure, and which does not in the least militate against its practical success.

Billroth continued to perform this operation, always for cancerous diseases of the stomach, and introduced soon after his first case, an improvement in his operative manual, the benefits of which became soon perceptible in the series of operations that followed.

Thus, he noticed that when union had taken place between the duodenum and resected pylorus, a sacciform dilatation of the great curvature very frequently took place, wherein a large amount of food accumulated and was prevented from progressing towards the intestine on account of a paretic state of the tissues of the stomach; this induced him to unite in all subsequent operations the duode-

num with the most dependent portion of the viscus—a change which he has never regretted.

Other surgeons, Nicolaysen, Surie, Tillmann, Czerny, etc., encouraged by brilliant precedent, imitated the practice of the Vienna surgeon. Rydiger, carrying his boldness still further, practised gasterectomy, not for the removal of cancer only, but for the excision of round ulcer of the pylorus with dilatation of the stomach as well.

In summarizing the record of published cases, we find that 28 observations have been published. Of these, 25 cases have been operated for the extirpation of cancer, and 4 only have been cured. Three times has the operation been performed for simple pyloric ulcers, and of these 2 recoveries are recorded.

These cases, few as they are, sufficiently demonstrate what we would have surmised, viz.: that the chances of success are much greater whenever we have to combat a limited, local, lesion, than when dealing with a diathetic disorder.

Furthermore, if we consider the advanced age of most of the subjects operated upon, we will appreciate one of the principal reasons for the unfavorable termination in such cases; again, as the rapidity of surgical action is one of the most advantageous elements of success, the necessary slowness of this operation is another agency in conflict with recovery. Of all the complications liable to confront the surgeon in operating on a carcinomatous pylorus, the most troublesome and unfortunate is, without doubt, the presence of adhesion which frequently exist between the diseased and healthy parts. When, as happens frequently, the pancreas is united to the tumor by adherent bands, the dissection is extremely tedious and liable to be followed by an escape of pancreatic fluid into the abdorminal cavity, or, at least, by the formation of an irregular and anfractous wound, which is apt to bleed dangerously; adhesions with the great vessels are equally disastrous.

The great extent of surface involved by the infiltrated masses, and the existence of carcinomatous ganglia are also very trying complications.

Anyway, whatever be the complications that a surgeon may be destined to encounter, the operator should not hesitate in interferring whenever he is presented with (1) a well defined pyloric cancer, which upon careful investigation appears to be (2) free from adhesions, and (3) afflicts an adult subject, not too much weakened by his disease,

He should operate also in cases of round ulcer of the pylorus *with stricture* of this orifice and dilatation of the stomach. He is again justified in operating in all cases of cicatricial constriction following the ingestion of caustic liquids.

Finally, Rydiger enumerates, as among the indications for this operation, the hemorrhages supervening upon a round ulcer whenever from their profusion they menace the life of the patient.—*Journal de Medecine, Paris.*

THE PATHOGENESIS OF URÆMIC PHENOMENA.

Dr. Paul Suyers performed a series of experiments in Prof. Stricker's laboratory at Vienna, with the view of testing the various doctrines that have been emitted in regard to the nature of uræmic poisoning.

He injected successfully and repeatedly into the veins of a dog, without producing any remarkable symptoms, a quantity of urea corresponding to the amount secreted by the animal in three and even four days. This explodes Wilson's theory that uræmic symptoms are due to the retention and accumulation of urea in the blood.

Numerous experiments led him to conclude, also, that the quantity of ammonium carbonate circulating in the blood of uræmic dogs is too small and feeble to base the deaths of these animals upon the toxic action of this salt; a result manifestly in contradiction to Frèrich's theory.

Traube believes that uraemia is associated with increased intra-vascular pressure, followed by cerebral anæmia; careful manometric tracings, however, revealed in dogs whose ureters had been ligated, that the arterial tension was not increased.

According to Felz and Ritter, the real agents in uræmic intoxication are the salts of potassium which accumulate in the blood. Yet, the examination of the blood of two women laboring under puerperal eclampsia revealed the fact that the proportion of potassium salts did not exceed the normal quantity.

The experimenter, rejecting all these theories, which would cause so complex a condition as uræmia to depend

upon the presence of a single compound in the blood, admits, with some reserve, however, the doctrine of Schottin, which explains the uræmic state by the accumulation in the blood of extractive matter, such as creatine, creatinine, leucine, tyrosin, and a number of other substances whose composition is yet poorly understood. As creatine is the most important member of this group, Prof. Jaccoud has designated this teaching the "creatinean theory"—*Bulletin de l'Academie de Belgique—Journal de Medecine.*

R. Matas, M. D.

WHEN SHOULD WE CLOSE A VESICO-VAGINAL FISTULA?

This question which seemed to have been decided long ago by Nelaton, Verneuil, and Sims, who operate six months after the injury, and by Baker-Brown and Kiwisch, who close the wound some weeks after the wound has been inflicted, has again been agitated by G. Braun, who operates immediately after the accidental occurrence of this condition.

In support of his method, he presents a case of a woman in whom embryotomy was so barbarously performed by a student that the instrument (a Braun's key-crochet), tore the anterior wall of the uterus, vagina and posterior vesical parietes. Braun was called upon to finish the operation. The rent measured transversely seven, and vertically, five centimeters. After paring the edges of the flaps with a sharp scissors, Braun immediately introduced twenty silver sutures which were left *in situ*, six days. At the end of the sixth day, only a small opening barely measuring thirteen milimeters was noticeable. By dint of caustic applications every two days and an occasional touch with Paquelin's cautery, the fistula was closed in two and a half months.

The same woman had to be delivered seven months after; the contracted cicatrix made the exit of the head difficult, yet it withstood the strain very successfully. (*Bull. de Gynecologie de Liege, Journal de Medecine.*)

R. Matas, M. D.

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Communications relating to medicine are invited from every source. Matters of more than ordinary moment are occurring daily to country physicians, brief reports of which this Journal would be glad to get.

In sending such communications, address DR. RUDOLPH MATAS.

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EDITORIAL.

COLLECTIVE INVESTIGATION OF DISEASE.

The spirit that animated the great movement initiated six months ago by the British Medical Association, is the only one that will ever succeed in sifting to their ultimate expression the fundamental truths of medical experience. It is only by the unanimous and co-ordinated action of large organized bodies that facts can be sufficiently accumulated to decide the value of opinion and interpret rightly the significance of individual observations. It has been one of the misfortunes of medicine, as well as that of all sciences largely dependant upon observation, that individual and not collective experience has furnished too frequently the basis of authority, and for this reason mainly have we been the victims of the schism, inconsistency and general instability, which has characterized the history of medical thought since the days of Hippocrates to our own. Now, in regard to this special inquiry, the word "collective" alone, may be misleading if the whole meaning of the investigation is considered; for collective data simply, are being continually brought into requisition in medical research. The study of vital statistics, for instance, misleading as they often are, has no doubt advanced, indirectly, the art of preventive medicine, particularly in its hygienic

aspects, yet it has elicited but little knowledge of the real causes of disease, and almost none whatever as to the methods of treatment. Morbid anatomy, though of the highest value in verifying diagnosis, and showing the seat of disease and the organic changes produced by it, cannot tell us of its causes, course or amenability to treatment in its earlier stages. The records of hospital observation, indeed, furnish invaluable studies of disease as seen in life, yet the great facts concerning its origin and its course, and particularly the after results of the hospital treatment bestowed, are, for the most part, extremely meagre and untrustworthy, or are wholly wanting. These indispensable missing facts, which, supplemented by post mortem studies, would be of the utmost importance to the science of medicine, involve more analytical, subtle and detective-like investigation for their elucidation, than that embraced by the word "collective" only. As expressed by Prof. Humphrey, the promoters of the plan referred to, aim to bring together the scattered fragments of medical knowledge, whether in the shape of facts, creeds, and traditions—to condense, digest and analyze them, and to make the facts of disease as observed by every practitioner throughout the British empire, a basis from which to encourage a thorough, complete and rational study of medical science.

"The plan is to draw up memoranda of the several subjects of enquiry, and to issue cards of questions concerning particular diseases throughout the kingdom. These cards are to be answered by the physicians to whom they are sent, and returned to the committee in charge, for classification and record." Over 50 committees have been organized, and nearly 1,000 of the prominent members are pledged to the work. Already important memoranda have been issued on acute rheumatism, by Drs. Goodhart and Barlow; on acute pneumonia, by Drs. Sturges and Coupland; on inherited and acquired syphilis, by Mr. Macnamara and Dr. Barlow; on diptheria, by Mr. Shirley Murphy, and questions on the evidence of the contagion of

phthisis, by Dr. Burney Yeo—all experts and high authorities in their special departments.

"Nothing," to quote Sir Wm. Gull, "can be more useful and instructive than such memoranda. When extended over the whole range of medicine, they will place before the practising member of the profession in every locality, more or less succinctly, the state of our knowledge on the different subjects proposed for inquiry; and they will, whilst they indicate what we want to know, inform us of our ignorance on the various subjects."

The proper formulating of these questions, without saying it, calls for a great amount of knowledge and intellectual combination and no slight perception; for, rightly, as the same author says, "to ask questions of nature is the highest science of the intellect." * * * *

"This is the vital centre of the whole movement; if the committee issue for any inquiry a definite question and that being settled, follow it up by another, and so on in series; nature must at last be driven into a corner and be obliged to say "yes," or "no."

"If it be that truth is hidden in nature as a stimulus to the intellect in the general pursuit of knowledge, to us this obscurity of things has a double meaning, where duty and interest come in to urge forward the pursuit,"

The enthusiastic manner with which the British Association has inaugurated this movement, and the large amount of work done in the furtherance of its purpose, promises a future full of rich reward, and will tend to make this year one of the grandest epochs in the history of this magnificent organization.

It is gratifying to witness the reciprocal sympathy evinced by the American Medical Association in the great movement. At the Cleveland meeting in June, Drs. Austin Flint, Billings, Gross, and other prominent members expressed great interest in the British enterprise; Dr. Billings especially brought the subject before the meeting and had it referred to the Committee on Medical Investigation for special consideration. We earnestly hope that Dr. Austin

Flint, in his presidential address, will comment largely upon this subject, and recommend with all the weight of his great authority and learning, a similar departure on the part of the American Association.

It is probable, that with time and the success of the present inquiry, the committees of both associations will assemble in an international conference to compare and formulate the conclusions derived from the combined observations of both nations. In the future, other foreign associations may also join in making national inquiries, and send representatives to an International Congress, where all the civilized countries of the earth will be able to discuss a truly collective investigation of disease. In fact, whilst writing the present article, the pleasing intelligence has reached us that the British movement has found an enthusiastic recognition on the continent, and that, in no less brilliant a body than the Berlin Medical Society, where a "central committee" was especially appointed to prosecute the work. Surely, under the leadership of such men as Professor Frerichs (Chairman), Drs. Leyden, Frantzel, Herr Wernich, Letten, Ewald, S. Guttman, Lowenstein and other prominent and world-renowned members, no Augur is needed to prophesy the future of this movement. We see then, that the work has earnestly begun, and that the foundation for the international study of disease is being laid with a solidity and rapidity that means an early consolidation of the medical profession throughout the world, into one single but composite body—uniting all the intellectual forces of the globe—to cope with the mysterious problems of disease.

Believing, as we do with Sir William Gull, that more than what we dare now expect will grow out of collective investigation, we must not be over sanguine as to its immediate results: "The essentials for success are not only the *numbers*, but the *intellectual organization* of the movement. If we aspire to have the arms of Briareus, we shall need the eyes of Argus; for nature is very much a Sphinx, and will answer no question put to her if open to evasion. Yet, in

truth, it is not so; *for truth lies on the surface, if we had minds trained and free from prejudice to see it.*"

CHOLERA.

The grave and alarming character of the dispatches received from Egypt since July 1st, are sufficient to awake, if not serious apprehensions of an invasion of this country by the formidable "Colossus of the Ganges," at least a sense of danger which is quite justifiable whenever this monarch of pestilences evinces any disposition to migrate from his domains.

Fortunately the epidemic prevalence of cholera is limited to Egyptian territory where it seems to have concentrated its fury in the delta towns of the Nile. In this congenial soil, not unlike the alluvial bottoms and marshy banks of its own Ganges, the pestilence has developed its most malignant features, destroying scores of people daily in the towns of Damietta, Mansourah, Shirbin and Soumanoud. The latest advices, indeed inform us, that the resistless scourge has broken through the rigid military cordons that surround the infected districts and even reached Cairo, where it will doubtless hold high carnival in view of the filthy and unprepared condition of that capital. There is evidence also, that the disease is prevailing sporadically in Alexandria and Port Said, where it is liable to assume epidemic proportions at any moment. In view of the diffusive and malignant tendencies of the disease, all foreign countries, excepting England, have put in operation their strictest quarantine laws, in accordance with the last sanitary conference at Constantinople. It is evident, however, that unless the rigid sanitation now maintained about the infected towns succeeds in annihilating the deadly pest in its hotbed, not much hope can be entertained of preventing its admission into Europe, even if a general and combined international quarantine be established along the whole Mediterranean coast. Notwithstanding Sir William Gull's

letter to Lord Granville, British Secretary of Foreign Affairs, in which he confidently expresses the opinion that the Egyptian epidemic will be stamped out before it is allowed to spread beyond its present limits, it is difficult to understand how, even with a complete protection along the Mediterranean coast, cholera can be effectually kept out of the continent if the British Government persists in its present sanitary (?) policy and allows all vessels excepting those manifestly infected to enter all its harbors without detention or even inspection. It is strange that a nation so conservative and so pre-eminently a supporter of sanitary movements as England, should manifest such apparent indifference in regard to the application of protective measures, particularly, when these are the only ones that can promise some security from the implantation of the pestilential seed in her soil. Certainly, England must have great confidence in the restrictive measures now in operation in Egypt, but the late onslaught of the disease upon the military cordons themselves, and its appearance beyond these, notwithstanding the unpitying orders: "to fire upon all persons attempting to cross the lines," ought reasonably to shake her confidence in the possibility of confining so ungovernable a disease to its original foci.

If we consult the history of cholera in the United States, we will find that since the first and memorable epidemic of 1832, the disease has always been brought to this continent in European vessels, and that the most deadly of these visitations have reached us through the medium of English ships. Thus, the arrival of the Garricks and other vessels laden with Irish emigrants, in Canadian waters, infected with cholera cases, initiated this continent, in 1832, to the miseries that only this plague can produce. In 1834, Canada was re-infected by another importation from Dublin. The "Cromwell" from Havre, and the "Berlin," "Gipsey" and "Fingal" from Liverpool, revived the dying epidemic of 1848, which also had originated from infection brought by vessels from France and England. The cholera epidemic of 1866 opened with the arrival in the

harbor of Halifax of the steamship "England" from Liverpool. And, in addition, we must remember that in some instances cholera laden vessels have left harbors *reported healthy and free from cholera infection* and yet have introduced this disease through the agency of emigrants from contaminated districts, but who embarked healthy at these ports. It was in this way that the disease was brought to this country in 1848, by German emigrants on board the New York and Swanton, both of which cleared from Havre at a time when this port was reported to be free from epidemic diseases. The epidemic outbreak that followed, was, however, ascertained to be due to importation from the infected districts from which the emigrants came.

If we apply the teachings involved in these facts to the history of cholera importations in other countries, is it unreasonable that France and Spain should have vigorously manifested their displeasure at England's conduct by quarantining all vessels from British ports? The admission of a vessel to *free pratique*, merely because such a vessel is not *manifestly* contaminated with cholera, is clearly a mode of treatment involving danger not only to the country directly interested, but to all others commercially related to it. It is plain that with such facts before us, not too much caution can be exercised in expressing opinions as to our liability to cholera infection. For, as above explained, it is *possible* that an American vessel could become infected with Egyptian cholera, whilst in an English harbor, even without the apparent contamination of the latter. Furthermore, the very laxity of English quarantines, will tend to draw a current of refugees, at least the wealthier class, towards her harbors, in case the epidemic should spread in Egypt. And again, the fact that England's present political relations with Egypt demand a more intimate system of communication between the two countries, would all tend towards a special liability to the infection of British harbors which should not be overlooked by our government.

Of course, unless Great Britain, or other nations most intimately related to us commercially, become contaminated, it is hardly probable that we incur any risk of a cholera visitation, yet, as a possibility of such an event exists, and as possibilities with cholera involve the health, wealth and prosperity of nations, even to their utter annihilation, it would not be amiss if our government would maintain an extra vigilance, at least during the presence of the Egyptian pestilence—for we believe that cholera, if properly expected in our ports, can be excluded from our soil by vigorous and *specific* sanitation. In thus expressing ourselves we are merely repeating the opinion of the lamented Woodworth, whose authority in these matters stands pre-eminent, and who says: "It is safe to say that malignant cholera can be excluded from our shores with reasonable certainty, through an intelligent sanitary supervision of the mercantile marine; in which supervision, while the general government on the one side, in exercising its delegated powers for the protection and promotion of the general welfare, shall simply acquire and furnish the necessary information; on the other, the ports themselves, thus forwarded and advised, shall be left to enforce the necessary precautionary and preventive measures, in accordance with their own local conditions and requirements. For nothing is more clearly proven by the history of cholera than that epidemics of this dreaded disease can be controlled by vigorous hygienic measures. *The true remedy against cholera is preventive medicine.*"

Since the above was written, some of our worst fears have been realized. The pest has completely broken through all the barriers opposed to its march. Egypt has been overrun by the disease, and its northern portion has been utterly prostrated by it. In Cairo it has proven most deadly. In fact from the frightful mortality returned from that place, it would seem that the medicine has hardly offered any practical assistance to the afflicted, and at least the successful therapeusis of the disease is evidently a blank

in its history. After the appearance of cholera in Zifteh and Chibin, thirty and forty miles respectively from the Egyptian capital, a sanitary cordon was placed around the city; two days after, it was found prevailing in a suburb where seven persons died. The next day twelve cases were reported in Cairo itself, and since then, as estimated by the *Times-Democrat* of this city, over 1050 have fallen victims to the disease in Cairo alone. The total mortality throughout Egypt during the month (July) is calculated by the same paper to be 7,000 persons! Verily, the scriptural days seem to have returned to this God-forsaken country.

Since, deaths from cholera were reported lately in London docks, but later advises treat the report as a *canard*. We hope it is so, yet London remains a very dangerous port, even with the late improvements in the quarantine regulations, as it is liable at any moment to receive infection, moreso, now that cholera is known to prevail epidemically in Bombay, one of the chief ports of communication with England. The course pursued by the Surgeon General of the Marine Hospital Service, in appointing Sanitary Inspectors in London and Liverpool, to examine all vessels bound for American ports, we believe a safe and commendable one; it is in accordance with Woodworth's plan of excluding the disease from America, as outlined in the preceding pages, and enumerated by him in the preface to the Report on Epidemic Cholera in the United States in 1873. With proper surveillance, home sanitation, and, if necessary, complete non-intercourse with infected foci, we ought to keep the dreaded pestilence out of our shores.

A LIBERAL APPROPRIATION.

The French Government has introduced in the French Chamber of Deputies, and demanded urgently therefor, a credit of 500,000 francs, for paying the expenses of the scientific commission, which, it is proposed, to send to Egypt to investigate the cholera epidemic. After this evidence of scientific and progressive spirit, the Republic

deserves the sympathy and congratulations of all liberal-minded people.

In the midst of her home troubles, threatened wars, and other difficulties, France has always an eye to her scientific advancement, and is willing to prove to the world her readiness to encourage true science and foster all efforts that may tend to humanitarian ends.

A MERITED COMPLIMENT.

The numerous friends of Dr. Geo. H. Rohé, formerly of this city, and now Professor of Dermatology and Hygiene in the College of Physicians and Surgeons of Baltimore, will be pleased to learn that he has been engaged by the Minnesota Hospital College to deliver a course of twelve lectures upon Hygiene. The faculty of the College is to be complimented upon their selective acumen and enterprise in securing the services of such an able and instructive lecturer as Dr. Rohé.

We congratulate our esteemed *confrere* upon this new proof of public appreciation, and hope that he will continue to receive such worthy tributes to his distinguished ability aud learning.

M. PASTEUR AND THE EGYPTIAN PLAGUE.

If late advices are reliable, it would seem that the great French investigator proposes to organize a scientific mission to study the pathogeny of the malignant cholera now prevailing in Egypt, and has asked Lord Granville to assist him in the prosecution of his inquiry. It is difficult to decide whether we should congratulate the profession upon M. Pasteur's determination or to regret it. The vast services rendered by this profound ætiologist, which involve the saving of millions of money, and the farming as well as sanitary prosperity of his own and other agricultural countries, have made him so pre-eminently a benefactor of mankind, that it is doubtful whether the dis-

coveries he may make in Egypt are commensurate with the risk of death necessarily incurred in this investigation. The life of such men as M. Pasteur is precious to the whole world, but is not the prevention of cholera—which means its practical annihilation—worth the exposure?

Let us hope that M. Pasteur, if he does leave for the seat of his proposed labors, will return safe from their perils; he may feel well assured that the scientific world will intently watch his progress, and await with anxiety the results of his great and generous resolution.

OPTHALMOLOGY AND OTOLOGY.

We are pleased to announce that in our next and succeeding numbers, a monthly review of opthalmological and otological progress will be regularly contributed by our esteemed friend Dr. H. Dickson Bruns, who has kindly consented to assume the direction of these special departments. Dr. Bruns' well known abilities as an oculist and aurist, and his extensive and varied experience in the eye and ear wards of the Charity Hospital, will doubtless tend to make his contributions one of the attractive and valuable features of this Journal.

MEETING OF TRI-STATE MEDICAL ASSOCIATION.

The Ninth Annual Meeting of the Tri-State Medical Association will be held in Indianopolis, Sept. 18th, 19th and 20th. The work is already far advanced, and the title of each paper should be sent in at once. Papers must not exceed 25 minutes.

It is also the rule that each physician who registers must be a member of a local or State society in good repute. All such are invited.

Notice of papers or cases to be presented may be sent to the Chairman of Committee on Programme, Dr. J. L.

Thompson, Indianopolis; to the Secretary, Dr. G. W. Burton, Mitchell, Indiana, or to the President, Dr. Wm. Porter, St. Louis.

We regret that owing to the excessive accumulation of material, we have been obliged to postpone the publication of a very interesting letter from the pen of Dr. S. S. Herrick, in reply to Dr. Duprees' critical article on "Bovine Vaccine," published in our last number. This, with other important papers, will be duly presented to our readers in our next issue.

Doubtless most of our readers will not fail to be agreeably impressed by the new and attractive typography of the JOURNAL. The clear, elegant and eye-saving "old style type," has been substituted for that which has been used heretofore in the printing of this publication. The thanks of the JOURNAL and its friends, are due to Messrs. L. Graham & Son, our printers, for their successful efforts to raise the type-status of this publication to that of the best medical journals in the country.

REVIEWS AND BOOK-NOTICES.

Students' Guide to Diseases of the Eye. By Edward Nettleship, F. R. C. S.; Opthalmic Surgeon to St. Thomas' Hospital, and to the Hospital for Sick Children, Great Ormond street. Second American from the Second revised and enlarged English edition. With a chapter on examination for color perception, by William Thomson, M. D., Professor of Opthalmology in Jefferson Medical College. Philadelphia: Henry G. Lea's Son & Co., 1883. Armand Hawkins, 169 Canal street. [Price $2.]

A special responsibility rests upon the critic, whose dicta are expected to decide the merits of a work intended for

elementary or fundamental instruction. Dr. Nettleship's "Guide," however, has successfully undergone the ordeal, not only of critical fastidiousness, but also the more decisive and trying test of public appreciation. For this reason we will not dwell upon the general character of the book, further than that which concerns the publisher's statement, viz.: "that no pains have been spared to place it (the present edition), *in every particular*, upon a level with the latest developments of the opthalmological specialty." Upon scanning the pages of the book, we are not altogether ready to agree with them in this particular. Notwithstanding that a mere "guide" cannot be expected to give minute instruction upon a fertile specialty, such as that of oculistry, yet, even in an introductory volume, like the one before us, we would like to see more fullness in the therapeutical departments, in order to make the successful application of the principles taught practically useful to the student. Thus we miss many valuable hints in the treatment of corneal affections, particularly in dealing with non-specific keratites and opacities. In dealing with the ætiology of purulent opthalmia, no allusion even is made to the late researches of Haussman, Abadie, Bailly and DeWecker; nothing is said, either, of the relations of parasitic aspergilli and other fungi in the causation of this disease, a subject recently and thoroughly studied by Leber, of Berlin.

In connection with the treatment of foreign bodies in the eyeball, we would like to have read something about the tolerance of extraneous bodies in the fundus oculi, and little more about conservative opthalmology in such cases. Certainly, the remarkable evidence adduced by Knapp in a recent report, should lead the oculist to use more circumspection in the performance of enucleation, as usually recommended in such cases. However, the rules of practice throughout the chapter on ocular injuries are, to speak justly, very precisely, plainly and vigorously laid before the student.

In dealing with stricture of the duct, we read nothing of

Galezowski's new method of rapid and forcible dilatation without incision, for the cure of this condition. Galezowski found that by the use of his dilator he could effect the cure of even long standing strictures in a month or six weeks, frequently after Stilling's method, followed by Cooper's probes, had failed.

A chapter on "optical outlines," in which the elementary definitions and fundamental principles of optics are presented in rudimentary language, attest the appreciation by the author of the unfortunate ignorance prevalent among students upon this essential and preliminary study.

Dr. William Thomson has contributed an interesting and valuable chapter on the detection of color blindness. His extensive experience with the Pennsylvania Railroad Company's employés, lending considerable weight to his assertions. His instructions for test examinations are lucidly and practically written.

Chapter XX, on the errors of refraction and accomodation; a test chapter in all opthalmological treatises is in this instance very creditably written; the subject astigmatism, usually so impenetrable to students is here rendered lucid and placed within the grasp of the shallowest intelligence.

Operative opthalmology is as fully and comprehensively presented to the reader as can be expected in a "Guide."

What will doubtless be hailed with pleasure by students, in consulting this book, is the practical idea of defining briefly, but clearly, all the difficult technical words in the index. Thus, such words as *scotoma*, *coloboma*, *corcdialysis*, *dacryops*, *episcleritis*, etc., are all defined in their proper place in the index, making this a valuable glossarial as well as referential syllabus.

The wood cuts have been carefully selected whenever reproduced from other works: the majority are original, thoroughly illustrative of the text, and very presentable from the artistic standpoint.

In conclusion, we safely recommend this book as worthy of the confidence already bestowed upon its predecessor.

The Dispensatory of the United States of America. By Dr. Geo. B. Wood and Dr. Franklin Bache. Fifteenth edition; re-arranged, thoroughly revised, and largely re-written, with illustrations. By H. C. Wood, M. D., member of the National Academy of Science; Professor of Materia Medica and Therapeutics, and of Diseases of the Nervous System in the University of Pennsylvania. Joseph P. Remington, Ph. G., Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy; First Vice-Chairman of the Committee of Revision and Publication of the Pharmacopœia of the United States of America, and Samuel P. Sadtler, Ph. D., F. C. S., Professor of Chemistry in the Philadelphia College of Pharmacy and of General and Organic Chemistry in the University of Pennsylvania. Philadelphia: J. B. Lippincott & Co., 1883.

What Blackstone is to the lawyer, what the Bible is to the theologian, and Webster to the student, the noble, old United States Dispensatory is to the pharmacist and physician. Half a century has elapsed since the work of editing a great comentary to the United States Pharmacopœia was undertaken by Drs. Geo. B. Wood and Franklin Bache, and now a new edition has been launched, for the fifteenth time, from the publishing house, laden with rich stores of pharmaceutical and therapeutical treasure.

What phenomenal success this remarkable book has achieved! During the fifty years that have elapsed since its creation, the Dispensatory has safely weathered and triumphantly ridden through the great storms that have swept over science: "the fate that awaits all men has come to the authors: and yet, with a steadiness that is unrivalled in medical literature, the United States Dispensatory has maintained its supremacy, until the copies of it which have been sold are to be numbered by the hundreds of thousands, and wherever the English language leads, it follows."

The fifteenth edition of the United States Dispensatory follows the sixth decennial revision of the Pharmacopœia of the United States, which differs widely from preceding revisions in its general arrangement, and in the methods of

its formulæ. In consequence, we find great changes in the department of pharmaceutical chemistry and pharmacy. Thus, the theoretically correct plan of stating all the ingredients of formulæ in parts, by weight instead of definite quantities is generally followed. However, great difficulties will doubtless be encountered before the principle of parts by weight is completely introduced. Practical objections to this as well as to the general adoption of the metric system of weights exist. In both instances, one of the main obstacles to overcome, at least in the present and coming generation of physicians and pharmacists, is the long habit of calculating and estimating the proportions of ingredients by an old established routine system. The authors fully appreciating these and other difficulties, have largely facilitated the introduction of the more simple and scientific system, by giving in addition to parts by weight, their equivalents of the formulæ in definite quantities according to the established weights and measures.

The changes most noticeable to the physician, will be found in Dr. H. C. Wood's department. As was to be expected, the great apostle of Rational Physiological Therapeutics has made sad havoc among the teachings of his ancient predecessor, of whom he rightly says: "When the fourteenth edition of the Dispensatory was published, Dr. Geo. B. Wood was nearly eighty years of age, and, although he sympathized with the movements which has resulted in putting therapeutics upon the firm foundation of physiological rationalism, he could not fully apprehend the changes which had occurred in therapeutical methods during the previous decade." The most important articles have been entirely re-written, and the action of each drug is elucidated in the clear, elegant, and possibly, a little too *hypothetical*, though always well sustained style of Dr. Horatio Wood.

The chemical portion of the work has been completely revolutionized by Prof. Sadtler. Since Dr. Bache's death, in 1864, this part of the volume had not undergone the material changes, particularly the theoretical demonstra-

tions, that were demanded by the prodigious advance of chemistry since that day. Dr. S., however, has done complete justice to his special task, which together with Toxicology, has been admirably adapted to the chemical status of the day.

The essentially novel features of this edition, the authors call attention to, are the indication of the pronunciation of the official titles by diacritical marks; to the complete list of analysis of European springs of note and to the illustrations. These represent drugs and microscopical sections, demonstrating structural characteristics. The amount of new matter added at this revision may be judged of from the fact that "whilst in the index of the fourteenth edition there were about eleven thousand references, in the present index there are more than sixteen thonsand titles, including in these, however, German and French synonyms, never before indexed."

In conclusion, we will say that Messrs. Wood, Remington and Sadtler, have every reason to congratulate themselves upon the results of their labors. They have certainly made the new United States Dispensatory, "worthy of the time when it was universally recognized as the supreme treasure-house of pharmaceutical lore"

Current Medical Literature.

The Profession's Greatest Need.—If we were to ask the average practitioner in city or country what was the greatest single obstacle to his progress, he would doubtless say, a field too much occupied. It is the constant appearance of new men, young, eager, and hopeful, which cuts off here and there the extension of his practice, and which threatens to narrow down that which he already possesses.

Protection against a horde of superfluous rivals is what the general practitioner, who is himself well equipped and competent, most needs.

How can he secure this protection? There is but one way which is at all practicable, and that is by elevating the barriers, so-called, which now mark the entrance to the medical profession.

If every college in New York State was obliged to give a four years' course, if the graduates and outsiders were obliged to submit to an examination by a Board before they could get a license, should we have ten thousand doctors in this State with only three thousand fit to go in the Green Book?

Now, since there is in our State, as well as in most others, an evil so palpable, so obtrusive, so pernicious, that not an educated physician fails to see and feel it: and since there is also a partial remedy for it at least, we say that the profession ought to devote its strongest energies to applying this remedy, to elevating the status of medical education, and to keeping incompetent excess from its ranks. Here is "something worth fighting for," as our contemporary of Buffalo has well said.

The practical result of changing the old Code to the new Code, or the reverse, will now be trivial. Doctors will act as their characters determine them to act. The President of the American Medical Association says that the by-laws of that association permit consultations with irregulars, others think they do not. He (the President) thinks these by-laws should be changed; the judicial council think not. The matter as it stands is in an admirable state of complexity.

Meanwhile we say to our readers and to physicians everywhere, work for what most affects your daily bread; protect yourselves by reforming the methods of educating and licensing medical students, by laying a hand upon the colleges, and saying, "We protest against college professors growing rich on the fees of these half-educated, two-term doctors whom you turn abroad every year to compete with us."

In the light of the real needs of the profession few things could be more scandalous, than that medical colleges should advertise themselves as supremely ethical when they have not the courage to sustain long courses or even to demand preliminary examinations. The matter is in a nutshell. There is money in being orthodoxly ethical; but a three-term course, a careful educational system, is expensive.—*N. Y. Med. Record.*

Dr. J. Addison Stucky, thus closes a valuable article on Chronic Nasal Catarrh in the *Medical Herald:*

In the treatment of this disease the first thing to be done is to thoroughly cleanse the parts. This is of paramount importance. The means employed to accomplish this should be mild and non-irritating. Anything which produces pain which lasts longer than a few seconds should not be used. I usually use for cleansing purposes the following mixture, which is a modification of "Dobell's solution":

℞ Sodæ bicarb., Sodæ biborate, aa ʒ ss; Glycerine, ʒ ij; Listerine, ʒ j; Aquæ, ʒ v. M. Ft. sol.

This solution when used slightly warmed, produces a very pleasant sensation, and is excellent for cleansing and disinfecting the nasal cavites.

It should be used in the form of a spray, and Rumbold's, or preferably Sass's, spray-producers are the best instruments for accomplishing this purpose. Unless there is a large accumulation of mucus or muco-purulent matter in the nasal passages (or vault of pharynx) a detergent is unnecessary. In many cases the passages can be thoroughly cleansed by blowing the nose vigorously.

I propose now to very briefly review the method of treatment employed in each of the varieties of nasal catarrh alluded to.

1. *Chronic Coryza* (catarrh). In the treatment of this variety, as well as most of the others, I use, with some modifications, the method originated by Dr. Rumbold. This consists in using in the form of a spray vaseline and ext. pinus canadensis. Unlike the distinguished author alluded to I have added to my armamentarium many other remedies besides the two mentioned. I use vaseline as a *menstruum* for the remedies employed, and it is the best, I think, that can be used in the treatment of diseases of the upper air-passages, for the following reasons: First, it is soothing, hence non-irritating; second, it softens the hard, dry crusts of adhering mucus, and renders cleansing easier and more effacacious; third, it adheres to the parts and thus keeps the remedies in contact with the diseased structures longer and better than an aqueous solution can; fourth, it does not cause the fullness and unpleasant sensation in the head that is usually complained of when an aqueous medicament is used; fifth, it can be applied warm.

The various cleansing and astringent (or curative?) solutions that are generally used produce such pain and discomfort that they are never resorted to except when the annoyance and pain caused by the disease *compel* the sufferer to resort to something for relief. In these cases the "remedy is (almost) as bad as the disease." I have altered somewhat the formula used by Dr. R., of pinus canadensis, and use the following:

℞ Ext. pinus canadensis, ʒ j; Acid carbol., C. P., gr. ijss; Glycerine, ʒ vj; Aquæ fervens, ʒ ij. M.

Of this mixture from one to three drops in half a dram of vaseline, "applied by means of such spray-producers as will make direct application to the *whole diseased surface*," used every other day, will soon relieve this trouble. I am frequently asked how to convert vaseline into a spray, it being a semi-solid? The answer is easy enough. First convert it into a liquid by heat. "The whole spray-producer should be made warm, almost hot, by placing it over the gas or spirit-lamp, before the vaseline is put into the bowl. If this is not done the vaseline will not flow into the tubular portion of the instrument, consequently no spray will issue on passing compressed air through it." In order to mix the medicaments after they have been placed in the bowl of the instrument "you simply place your finger lightly on the point where the spray comes out, and allow a small quantity of air to pass through the instrument. The pressure on the point turns a part of the air into the upper tube, which causes air-bubbles in the bowl. The rising bubbles cause the two kinds of liquid to mix."

I spray, first, the vault of the pharynx; second, the post-nasal openings; third, the ant. nares, using the same medicament in each instrument.

2. *Hypertrophic Nasal Catarrh.* This is the most difficult and intractable variety of the disease with which we have to deal, a surgical operation (removing the hypertrophied membrane) frequently being necessary to effect a cure. After thoroughly cleansing the parts with the solution alluded to I use, generally, glycerole tannin, two to six drops, in half dram of vaseline, in the same manner as in treating chronic nasal catarrh. When this does not produce the desired result, great good can be accomplished by using alternately either zinc chlor. or zinc sulph., one part to four of glycerine; of the latter from one to three

drops in half dram of vaseline, and used in the same manner as above described.

I have obtained better results from the use of tannic acid, in the form of the glycerole, in the treatment of this form of catarrh, than from any other remedy. I have occasionally used with good results iodoform as recommended by Dr. Beverly Robinson of New York, by means of the insufflator, alternating this with the above-mentioned treatment.

Atrophic Nasal Catarrh. In this form of the disease a detergent is always necessary in the beginning of the treatment. After thoroughly accomplishing this, use of pinus canadensis mixt. two to five drops, eucalyptol half drop, in half dram of vaseline, and spray the entire nasal and post-nasal cavities. I have found this combination to give very gratifying results in the majority of cases of this variety of catarrh. I have frequently had cases in which pulv. sanguinaria had a very good effect. This was used with the powder insufflator, according to the method and formula of Dr. F. Bosworth of New York.

Fetid Nasal Catarrh. In this variety I made use of the same treatment as in atrophic nasal catarrh, increasing the *eucalyptol* to one or two drops, and using the iodoform powder once a week alternately, instead of the sanguinaria.

Ozena. This being a disease of the accessory sinuses of the nasal cavities, and due, as a rule, to syphilis or struma, the cause is first ascertained and if possible removed. The nasal cavaties are to be kept cleansed, and the vaseline and eucalyptol used twice a week.

A Prescription for Acute Rheumatism—Dr. J. Mortimer Granville recommends the following formula in the treatment of this disease:

℞	Tincturæ Aconiti (P. B.) -	M. xii.
	Ammonii sulphidi - -	xvi.
	Aquæ Menth. virid - -	℥ xi. M.

The dose is a fourth part every four, or, even every three hours, according to the severity of the symptoms. The mixture should not be prescribed in larger quantity than will suffice for four doses, on account of the tincture of aconite, and, more especially, the tendency of the sulphide of ammonium to decompose and deposit.—*British Med. Journal. Med. Digest.*

Meteorological Summary—June.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temp'ture.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	30 060	78.8	80.3	....	.....	Mean Barometer,
2	30.050	77.5	84.3	.....	.67	Highest Barometer, 30.135-1″
3	30.050	74.0	83.5	.....	.37	Lowest Barometer, 29.812-8″
4	30 035	77.0	79.3	.....	.40	Monthly Range of Barometer, .328.
5	30.022	76.0	85.3	.....	.35	Mean Temperature, ——.
6	29 993	78.7	81.0	.....	.01	Highest Temperature, 81 8-15″
7	29.890	79 3	81.7	.....	.03	Lowest Temperature, 68.4-3″
8	29.801	77 5	86.2	.....	2.27	Greatest daily range of Temperature, 16.9-23″
9	29.783	81.3	82.2	.....	1.08	
10	29.808	81.7	83.5	....	.90	Least daily range of Temperature, 9.4-29″
11	29.884	79.3	90.0	.....	1.16	
12	29.897	83 5	77.7	.....	.03	Mean of Maximum Temperature, 87.5.
13	29.935	82 3	78.7	.....	.08	Mean of Minimum Temperature 74.9.
14	29.981	83.9	70.0	.....	.....	Mean daily range of Temperature, 12.6.
15	29.976	84.5	70.7	.....	.....	Prevailing Direction of Wind....E.
16	30.012	83.7	72 2	.....	.....	Total movement of wind, 4186 miles.
17	29.988	81.7	79.0	.....	.06	Highest Velocity of Wind and Direction, 28 miles, N. W.-23″
18	30.003	82.3	80.0	.....	.09	
19	29.969	83.8	72.0	.....	.....	Number of Clear Days, 3.
20	29.934	83.3	73.7	.....	.....	Number of fair days, 19.
21	29.954	84.3	71.8	.....	.....	No. of cloudy days on which no rain fell 1
22	30.018	85.3	67.8	.....	.....	Total No. of days on which rain fell, 7
23	29.978	81.7	73.3	.....	1.67	Total No. of days on which rain fell, 21
24	29.966	79.8	81.3	.....	.21	Dates of Lunar Halos, 16″
25	29.862	79.0	76.2	.....	.86	COMPARATIVE TEMPERATURE.
26	29 880	81.8	73.3	.....	....	1873..... 81.3 | 1878..... 82.0
27	29.999	81.0	62 7	.....	.01	1874..... 80.1 | 1879..... 80 9
28	29.980	78.4	81.2	.....	.76	1875..... .... | 1880..... 80.1
29	30.013	78 7	77.7	....	.44	1876..... 80.6 | 1881..... 83.0
30	30.001	80.6	75.8	.....	.....	1877..... 81.3 | 1882..... 81.1
31	.....	....	.....	.....	.....	COMPARATIVE PRECIPITATIONS. (Inches and Hundredths.)
Sums.	.....	...	....	.....	Tot.	1873..... 6.68 | 1878..... 7.35
Means	30.006	80.7	77.7	.....	12 05	1874..... 9.62 | 1879..... 2.96
						1875..... 4.92 | 1880..... 6.43
						1876..... 6.20 | 1881..... 2.84
						1877..... 2.75 | 1882..... 2.71

M. HERMAN, *Signal Corps, U. S. A.*

Mortality in New Orleans from June 23d, 1883, to July 21st, 1883, inclusive.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
June 23	0	15	15	28	5	158
June 30	0	11	17	17	2	117
July 7	0	7	10	17	1	116
July 14	0	8	16	17	1	117
July 21		12	17	23	0	140
Total	0	53	75	102	9	648

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

SEPTEMBER, 1883.

ORIGINAL PAPERS.

Report upon Yellow Fever in Louisiana in 1878 and Subsequently.

PART II.

For the purpose of reducing the second part of this report to such a compass that its publication may be completed in the September issue of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, I have prepared the following table showing the various points at which yellow fever occurred in Louisiana after its first appearance in New Orleans.

The localities are arranged in such sequence as to correspond with the chronological occurrence of the first cases at each place.

This table is only approximatively correct. Its errors principally relate to the reported number of cases and the number of deaths. These are more often under-stated than otherwise, because the reports were frequently sent in before the close of the epidemic.

The mortality rate has been computed for each place where the number of cases and number of deaths have been given. If the reader will disregard the decimals and read the whole numbers as representing the number of

deaths for every 10,000 cases, it will facilitate a comparison of the mortality rates in different places:

Names of Places.	First Case.	Number of Cases.	Number of Deaths.	Mortality Rate.
Port Eads	July 27	64	13	20.30
Thibodeaux	" 30	750	65	8.66
Plaquemine	Aug. 1	1159	125	10.78
Baton Rouge	" 10	2500	200	8.00
Delhi	" 11	164	34	20.73
Griffin's, near Summit,	" 13	.....	.....	.....
Paincourtville	" 14	181	20	15.47
Labadieville	" 16	160	24	14.70
Donaldsonville	" 17	498	71	14.45
Morgan City	" 17	586	109	18.73
Pilot Town	" 18	113	17	15.04
Allemands Station	" 20	32	17	53.12
Napoleonville	" 20	80	8	10.00
St. Bernard	" 25	19	7	36 84
Delta	" 27	87	47	54.02
Tangipahoa	Sept. 1	150	50	33.33
Buras Settlement	" 3	14	3	21.42
Lagonda and vicinity.	" 5	591	42	7.10
Port Hudson	" 9	100	11	11.00
Teche Country	" 10	715	81	11.33
Lafourche	" 12	209	26	12.44
Luling Station	" 15	.....	.....	.....
Pattersonville	" 16	.....	75	.....
Hammond	" 18	.....	5	.....
Jesuit's Bend	" 22	2	2	100.00
Clinton	" 23	96	15	15.62
Berwick City	" 27	.....	7	.....
Ponchatoula	Oct. 6	12	3	25.00
Houma	" ..	.....	.....	.....
Bayou Cypre Mort	Nov. ..	.....	7	.....

The following extracts from the body of the report are thought to be too important to be omitted from the abstract published:

Thibodeaux.

The town of Thibodeaux is situated upon the Bayou Lafourche in the interior of Louisiana, and contains a population of about 2800. A large proportion of the inhabitants are what we may call "acclimated" persons, and there is amongst them a large element of the French Creole. The population is mainly a fixed one, and there were, during the summer, but a small number of refugees

from New Orleans and other infected places; whilst comparatively few of the inhabitants of Thibodeaux fled to avoid the contagion.

There was established, and enforced,—up to the period when it was found the fever had obtained a firm footing in Thibodeaux,—a nominal quarantine. But this was, like most of the inland quarantines during the recent epidemic, very ineffective and of little or no value.

Beyond these facts the town was not specially interesting, presenting no special features as compared with similar towns in this region of country, with this notable exception: that in Thibodeaux the town was placed, by the 1st of July, in excellent sanitary condition. It is a local law that each spring all gutters, ditches, streets, privies, etc., be cleaned, and that after June 15th no earth shall be "turned up" nor spaded until the autumn. This year especially was this attended to, so that the authorities claim that by the 1st July there was not a cleaner town in the United States. Whilst I cannot endorse this statement, yet I can say that from my observation in November the town was unusually clean.

As to the first case of yellow fever in the town, there is some difference of opinion. Yet I think it has been very clearly established that the first case occurred at the Convent, situated just upon the borders of the town.

Sisters Augustine, Ignatia and Valerie came from New Orleans to the Convent on the 29th July.

On the 30th July, Sister Ignatia had an attack of yellow fever, from which, after a severe sickness, she recovered.

The second case seems to have been that of Mr. Marange, on Jackson street near Crazy. Mr. Marange was one of the quarantine guard, and had been, for ten days or two weeks, in the habit of boarding all trains of cars coming from New Orleans. He was taken sick on the 8th of August, and died in a few days, with a well marked case of yellow fever, but no black vomit.

In from 10 to 15 days after Mr. Marange's death there occurred nine (9) other cases in his house.

The third case was Sister Germaine, in the Convent, on the 17th August. She recovered.

The fourth case was that of Miss Martin, a novice in the Convent. She was taken sick on the 18th August and died on the 23d August.

The fifth case was that of Sister Faustine, in the Convent. She was taken sick Aug. 26th and died Aug. 30th.

The next case I record was that of John McCulla, a gardener, who lived within 25 yards of the Convent. There is reason to believe he was employed at work in the Convent garden. He was taken sick August 26th and recovered.

On August 31st, a child,—Suz. Knoblock,—living within 50 yards of the Convent, and who was accustomed to play near the Convent grounds, almost under the windows of the Convent, was attacked, and after his case it spread through that family and their kindred, to the extent of 15 or 20 cases.

By this time the disease was beginning to become epidemic over the city and was quite severe. Out of a population of 2800 there had been 750 cases, with 65 deaths, up to the date of my visit, November 14th.

E. Lloyd Howard, M. D.,
Member Yellow Fever Commission.

Plaquemine.

The town of Plaquemine, situated upon the west bank of the Mississippi river, in Louisiana, containing a population of about 1500, differs in no essential particular as to drainage, cleanliness, etc., from the other towns of this section of the country. The drainage is naturally good, being from the river to the bayou and swamps in the rear.

During the months of June and July, there had been a considerable number of cases of malarial fever, which usually abound at this season of the year.

At the date of my visit, Nov. 8th, 1878, the number of cases of yellow fever had been estimated at from 700 to

800, with about 120 deaths. There being no Health Board, nor system of registration, for the town, these figures are approximative only. There had been no enforcement of quarantine.

The first case of yellow fever in Plaquemine, according to the best testimony I could obtain, was in the person of Mrs. P., wife of one of the leading physicians of the town, and occurred August 1st. Mrs. L., a sister of Mrs. P., had come to reside in the house, July 10th, direct from New Orleans. On the 21st July, the husband of Mrs. L. arrived from New Orleans, reporting yellow fever as existing in his family in that city; he brought no baggage, and remained but two hours, returning to New Orleans. On the 27th July, Mrs. L. received from New Orleans a box, containing ladies' lingerie (having been purchased from, and shipped by "Jamison, Canal street, N. O."). This box was opened by Mrs. L. and Mrs. P., on the day of its arrival, July 27th. On the 1st of August, Mrs. P. was attacked by yellow fever, and, after a severe sickness, recovered.

About Aug. 5th and 6th, three of Dr. P.'s children were taken sick with the fever, and, subsequently, during the following six weeks, the other—six—children of the Doctor's were atttacked. None of these cases proved fatal; the family were natives of the place.

On the 11th Aug., Keller, a mulatto boy, 3 years of age, residing more than half a mile distant from Dr. P.'s house (see map), was taken sick, and died Aug. 16th, with black vomit. This boy was the son of the laundress of Dr. P.'s family, and had been accustomed to accompany his mother in her visits to the house.

The dwelling house of Dr. P., Church street, between Court and Plaquemine, is one of the largest and best of the town. It is situated in the highest and best drained portion of the town, having ample grounds and garden surrounding it, and is clean and well kept (see map).

On the 20th July, Mrs. Roche, wife of the postmaster, residing directly opposite to Dr. P. (see map), received

from " F. Newhall, 40 Camp street, New Orleans," a box, containing window shades, with cords, tassels, etc., and, on the same day, opened it, being assisted by Miss Ritter, who resided with her. On the 1st of August, Miss Ritter was attacked by yellow fever, and, after a severe illness, recovered. On the 4th Aug., Mrs. Ritter, residing in the same house, was taken sick, and died Aug. 11th, having had no black vomit, but copious black stools.

On the same day, Aug. 4th, and in Mr. Roche's house, Miss Bowman was taken sick. She recovered.

In the same house, on Aug. 12th, Mr. Ritter was attacked. He died Aug. 18th.

At the same place, between the 12th and 18th August, Mr. and Mrs. Roche, and four children, were taken sick. Mrs. Roche died, with black vomit, the others recovered. All of these cases at Mr. Roche's residence were of white people. The house is large, clean and well kept, and no local cause could be discovered by which to account for the sickness.

On the 16th of Aug., Miss Lena S., aged 18 years, who resided in the neighborhood of the above-mentioned families, at the " Ladies' Seminary " (see map), and who had been a frequent visitor to the sick of Dr. P.'s family, was attattacked, and died Aug. 28th.

At the same place, " Seminary," on 18th Aug., Edna Schlager, 4 years old, was taken sick. She died. In the two subsequent weeks, two other cases occurred at the " Seminary ;" one of which, an infant, terminated fatally.

On the 18th Aug., two sons of Major Landry, residing on Church street, between Court and Marion (see map), were taken sick. Both of them recovered. During the following two weeks, the Major himself and two daughters were attacked. Major Landry died ; the daughters recovered.

On the 15th Aug., Miss Carrie Schwing, daughter of Dr. Schwing, one of the most prominent physicians of the town, whose residence adjoined that of Dr. P. (see map), was taken sick. Miss Schwing had been constantly

visiting the sick at Dr. P.'s house. She recovered, but, subsequently, there were eleven other cases in the same house, of which two, children of the Doctor, terminated fatally.

On the 8th Aug., Miss Clement, corner Constitution and Plaquemine streets (see map), was taken sick. She recovered, but there were subsequently six cases in the house.

From the middle of August the disease spread, until there was scarcely a house in the town exempt from its visitation.

I have caused to be entered upon the accompanying map the earlier cases, and it will show at a glance the several points herein indicated. I have notes of a number of other cases occurring in this town, but they possess no features of any special interest, and I believe it best to confine myself in this report to the earlier cases, and not obscure them by numbers.

It will be seen that the fever began and first spread in the very best drained and built portion of the town, and amongst some of its best citizens. That in each of the earlier cases there had been communication with infected places, persons or articles, is a fact that impresses itself very forcibly.

The facts here submitted have been carefully verified, as far as my limited time would permit, and, I believe, any deductions based upon them will be well founded.

E. Lloyd Howard, M. D.,
Member Yellow Fever Commission.

Baton Rouge.

Baton Rouge, in the parish of East Baton Rouge, is situated on the east bank of the Mississippi. The sanitary surroundings are generally good, with the exception of some low grounds in the vicinity, which are, at times, subject to overflow, and a cause of malarial diseases.

The drainage of the town is partly towards the levee

and partly towards the bayous and swamps in the rear, and is not so good as the general advantages of location would seem to invite.

In other respects the sanitary features of Baton Rouge do not materially differ from those of other towns in this section of the country.

In May last, the drains and streets were well cleaned and put in order.

As soon as yellow fever was declared to be in New Orleans, a "*nominal*" quarantine was declared in Baton Rouge; but, from all the evidence, it appears to have been of no effectiveness whatever, and, as will be seen shortly, every principle of quarantine was openly violated.

On the 5th of August, the Democratic State Convention was permitted to assemble in the town, consisting of some four or five hundred delegates and their friends. These were, for several days, scattered throughout the town, chiefly at the hotels and restaurants. Amongst them were a large number from New Orleans, and it is the opinion of all the medical men of Baton Rouge, from the presence of the members of this Convention the first cases of yellow fever in Baton Rouge originated.

The first case of clearly marked yellow fever was, admittedly, in the person of Mr. Voivodich, who resided on Lafayette street, three doors south of Main street (See map).

Mr. Voivodich is a Pole of the age of 36 years. He has been living in this section of the country for the past seven years. He was the proprietor of a restaurant and hotel, and entertained delegates to the Convention, amongst them a number from New Orleans. The Convention assembled August 5th. On the 10th day of August, Mr. Voivodich was attacked by a clearly marked case of yellow fever, and only recovered after a severe illness of 20 days.

On the 24th of August, a brother of Mr. Voivodich, aged about 25 years, and who was associated with him in the business of the restaurant, was taken severely ill with

a well pronounced case of yellow fever, and died August 29th, with black vomit.

On the premises, at the date of the sickness of these two brothers, there were employed but two persons, a white girl, who acted as chambermaid, etc., and a colored porter. The girl was taken sick with yellow fever about the 4th September, and the colored porter "shortly after" the illness of Mr. Voivodich. Both of these recovered. The premises of the Voivodichs were in good sanitary condition. Mr. Voivodich had been accustomed, for several weeks prior to the meeting of the Convention, to board steamboats in the pursuit of his business.

On the 13th of August, Mrs. Dr. Curry, who resided on Lafayette street, about half a block north of Voivodich, and on the opposite side of the street, was taken sick, with a clearly marked case of yellow fever, and died August 18th with black vomit (See map).

On the 20th of August the children of Dr. Curry, (five in number, of whom the eldest was 17 years of age), were sent to the country, five miles from town. Dr. Curry remained at home and had an attack of yellow fever on the 22d of August, recovering after a severe illness.

During Dr. Curry's illness, his eldest son, aged 17 years, came back from the country, August 27th, to nurse his father, and was attacked by the fever in *one hour* after reaching his father's house. After quite a severe illness he recovered.

A second child of Dr. Curry—one of those sent to the country—was taken sick "shortly" after reaching the country and died with yellow fever. The other children, as well as the family with whom they boarded in the country, escaped sickness.

Dr. Curry, and all his family, had but recently come into Louisiana, having moved there from Indiana six months previously.

It should be stated, that Mrs. Curry, had been in the almost daily habit of visiting a sister, living one block

south of Voivodich's, and in doing so, she passed directly past Voivodich's door, going and returning.

From this time on, the fever spread regularly along Lafayette street, from the central point of Voivodich's house, and hardly two houses in this locality escaped its visitation. In the Blind Asylum, located in the old Harney House, situated almost opposite to Dr. Curry's house, and within less than half a block from Voivodich, there occurred 12 cases, with 2 deaths, both of the latter being unacclimated persons.

For about three weeks—with the exception of those above recorded—the cases were confined to the region just described, and the disease appeared to spread slowly, but steadily. About that time, however, cases began occurring throughout other sections of the town, until finally it was all involved.

It is a noticeable fact, however, that the parts of the town in the worst sanitary condition, Catfish and Goose Hollow, etc., were the last to become infected, and did not appear to suffer more than the more prosperous portions of the town.

There were a number of interesting facts in connection with the spread of the disease in Baton Rouge.

At the United States Barracks, a guard of four men was left on the removal of the troops at the approach of yellow fever. All four of the soldiers composing this guard were attacked by the disease, and three of them died.

The population of Baton Rouge is mainly a fixed one. There were but few refugees from New Orleans or other places in the town, and but few of the inhabitants left the town during, or prior to, the epidemic. Most of them had been long residents of the place.

The building of the Louisiana State University, situated within the town, and containing within its walls a population of 36, at an early period established a strict quarantine against the town, and enjoyed a remarkable immunity,

the few cases of sickness being apparently traceable to imperfect quarantine.

Prof. Stevens was taken sick in the institution on the 31st of August. The disease was supposed to have been contracted in a visit to the town. The professor's room was closely quarantined, aud on his recovery, his room and effects were kept in constant quarantine.

There was no other case in the institution until October 22d, when Sims Jackson, a mulatto, was attacked. Jackson was the porter of the institution and constantly visited the various sections of the town on errands. He died after a few days illness.

After his death, his wife and three deaf mutes were attacked; his wife was sent from the building on the second day of her sickness, and the mutes placed in strict quarantine. These mutes had been in the constant habit of sitting by the kitchen fire, and were thus in close communication with Jackson and his wife. There had been no further cases in the buildings up to November 6th.

In the town of Baton Rouge there were reported, up to November 6th, 1878:

Total number of cases.....	2,435.
Total number of deaths	157

The Health Officer expressed the opinion that at least 500 additional cases to those reported had occurred.

E. LLOYD HOWARD, M. D.
Member Yellow Fever Commission.

YELLOW FEVER IN DELHI, LA.

(*Abstract of John W. James' Report.*)

This village is situated on the railroad leading from Vicksburg to Monroe, about fifty miles west of Vicksburg. It has a population of about 100 persons.

Yellow fever was brought to Delhi by a mechanic, who was in Vicksburg some days after the disease had appeared there, and boarded at a house near the portion of the town first infected.

He was taken sick on the 11th of August, shortly after his arrival. The second person attacked was a medical student who nursed the first case. He fell sick August 17th; on the 23d, two others were attacked: on the 25th, two more; on the 27th, five were attacked, all in the neighborhood of the first case.

From this time the disease spread rapidly through the village and adjacent country. Two only of the unprotected population escaped attacks.

It is not known to what circumstances their immunity was due. Under medical advice some of the citizens used baths of diluted muriatic and nitric acid as prophylactics, but they were not believed to have done any good. It is not even stated that the two who escaped had resorted to its use. Every species of disinfectant known, or suggested, was tried "until it was generally believed to be an injury." The treatment of the disease was particularly unsuccessful in the village, fifty per cent. of whites attacked dying; in the country, under dissimilar treatment, the results were more favorable. Total number of cases in town and vicinity, 164 whites; under 5 years, 8, 1 fatal; 5 to 10, 11, none fatal; 10 to 20, 14, 3 fatal; 20 to 40, 27, 11 fatal; 40 to 60, 11, 6 fatal; 60 to 80, 1, 1 fatal.

Total, whites, 72; 24 fatal. 33.33 per cent. Blacks, 89 cases, 10 fatal. 11.23 per cent. Three unstated as to color recovered.

The Yellow Fever at Mr. Y. F. Griffins, Four Miles East of Summit.

On the 28th day of July, Mrs. Wilhoft, with her three children and Mrs. Jewell, arrived from New Orleans and proceeded to her father's house the same day. Her trunks arrived the day following, and were taken there also, and were opened at such times during the week as Mrs. W. and her children needed articles contained in them, and were immediately closed again. August 5th, Mrs. Jewell returned to New Orleans, taking her trunks with her. Mrs.

Wilhoft came in to Summit the same day, and remained at my house until Friday evening, August 10th, when she was sent for by her brother-in-law, Mr. J. A. Jenkins; she visited her father's for her other two children, and such clothing as would be needed on her visit. Her trunk was opened at this time, and the contents taken out and spread on the beds, etc., to enable her to select such as she desired more conveniently. The balance of the contents were left to be replaced in her truuk by Mrs. Griffin and her children. The next morning, Saturdry, Alick, her second son, packed the things in her trunk, having to stoop over it for that purpose, and handling every article of clothing in it. Mrs. Griffin and the younger children were in the room at the time. Mr. G. and the eldest son, Young, being absent from the house.

On August 13th, three days after the packing, Aleck was taken with a chill, followed by high fever, with severe pains in head and back. August 14th, little Francis, the youngest child was taken with a chill, vomiting and pain in the head and back, with eyes swollen and very red; Mrs. G. was feeling unwell also during the entire day. About daylight Thursday morning, little Mary was taken with the same symptoms; about noon the same day Whit, the third son, was taken down as the others had been (without vomiting). Mrs. Griffin had to retire to bed before sundown, and early in the morning had a chill, severe vomiting of bloody water. with pains in the head, back, etc.

About seven o'clock, Friday morning, August 16th, I saw the five sick of this afflicted family the first time. I left the house at 10 o'clock, A. M., and soon after the eldest son, Young, was taken with the usual symptoms; this was the third day from the first case. On Sunday morning Mr. Griffin was taken as the rest of the family had been, with severe pains through hips and back, also burning pain in eyes, without headache.

On Tuesday, August 20th, Alick had black vomit once, and lived thirty seven-hours afterward.

It is my opinion that Mrs. Griffin and the children, who

were in the room during the packing of the trunk, contracted the disease from that source—while Young must have taken it from Aleck, as he and his father were not about the room or trunk. After Mrs. Griffin was taken down, Mr. Griffin, being brought in direct contact with the disease, was taken down three days afterward.

That the deaths at Mr. Griffin's were from yellow fever, no one who saw them can doubt, and that the disease was brought there in the trunk spoken of there is no room for a doubt, Mrs. Wilhofts's little boys having just recovered from the yellow fever when she left New Orleans.

Truly yours, W. W. Moore,
Attending Physician.

Summit, Miss., Sept. 25, 1878.

Morgan City, La.

Visited by Dr. John M. Woodworth, late Surgeon General U. S. M. H. S., January 5th, 6th and 8th, 1879.

Morgan City, Louisiana, is situated on the east shore of Berwick Bay, or Atchafalaya river, which is the outlet to the Gulf for Grand, and other lakes which receive large accessions from the Mississippi river, at a point near Plaquemine, La. It is 81 miles distant from New Orleans, with which it is in daily communication by rail.

The site of Morgan City is flat, and only about four or five feet above ordinary water level of the Bay. There is only surface drainage. The buildings are of wood, and, as a rule, not much raised above the ground. The population of Morgan City, at the time of the outbreak, is estimated at 3,000. The probable number who fled the city on the breaking out of the fever, 1500. As the fever advanced, about 300 more fled, leaving about 1200 people present when the fever was at its height.

The first case of Yellow Fever occurred August 17th, and the last case November 10th.

The first death occurred August 21st, and the last death in November.

Total cases, 586: total deaths, 109.

The first case of yellow fever which occurred at Morgan City, was N. C. Hansen, a sailor who had been in the employ of the Morgan Steamship Company, running between Morgan City and Brazos, Texas. Hansen arrived in Morgan City on the 10th of August from Brazos, on which day he was paid off, and went to Mrs. Cavanaugh's boarding house, near the steamboat wharf and railroad depot, which was his usual stopping place in Morgan City. Hansen had occasional ague-chills while on board the Morgan steamship "Harris," plying between Morgan City and Brazos, but did not give up work at any time while on board. On the 12th of August, Hansen went to New Orleans, where he remained two nights and one day, and while there he visited a house of prostitution. On Wednesday, the 14th of August, he returned to Morgan City by the railroad train, which arrived at noon, and having eluded the quarantine officers, returned to Mrs. Cavanaugh's boarding house. On Friday and Saturday following Hansen's return, he spent some hours on the Bay and went in bathing. He ate a hearty supper on Saturday evening, the 17th of August, and was attacked soon after. Dr. W. H. Gray was called to see him the next morning at 9 o'clock. The patient complained of pain in his head and back, had a high fever, eyes were congested, tongue loaded at the centre with a whitish coat and the edges red. An examination of the urine disclosed a large amount of albumen. He had black vomit on the 22nd of August, and died soon after on that day. He commenced to turn yellow before death, and subsequently to the fatal result, his skin became the color of an orange.

Fact Note: Dr. Gray states that in 1877 he treated a case of yellow fever in the same room where Hansen died: a seaman who had arrived in Morgan City by boat from an infected city.

Two days after Hansen's death, August 24th, William Bailey, a seaman boarding at Mrs. Cavanaugh's, who nursed Hansen during his sickness, was taken with the fever and died August 28th. Bailey came from Havana three weeks before his sickness.

The third case was Mr. J. G. Brookshire, an editor of a paper who lived two doors west of Mr. Cavanaugh's. A small building used as a physician's office separates Mrs. Cavanaugh's boarding house from the house where Brookshire lived and had his office. Brookshire was greatly alarmed upon the appearance of the fever in Morgan City and had been drinking and was up at night previous to his attack on the 22d of August. His skin became somewhat yellow before death, which occurred in convulsions on the 27th of August. Mr. Brookshire was attended by Dr. McGuffey, who died subsequently, probably of yellow fever.

The 4th, 5th and 6th case were Joseph, aged 4, and Edward, aged 8 years, both sons of Mrs. Cavanaugh, and Robert Brown, a sailor, all of whom resided in the same house where Hansen died. They were taken sick on the same day, August 26th, and Joseph Cavanaugh died on the 30th, with black vomit. Edward Cavanaugh and Robert Brown recovered. Brown had been at Mrs. Cavanaugh's two months before his sickness.

The 7th case was Pat. Mahoney, who resided in the same house with Brookshire (No. 3). He was taken on the 30th of August, and recovered. Dr. White, who attended him, reports that the fever lasted 96 hours with a temperature ranging from 103½ to 104. There were 5 cases and 3 deaths in this house, including No, 3 and No. 7.

Mrs. Cavanaugh's house is situated on the north-east corner of First street and the railroad street. On the corner of the next block, east, is a coffee-house, and the next building beyond, fronting the railroad is the post-office, which is also the residence of the postmaster and his family. Matilda Miller, 8th, daughter of the postmaster, aged 4

years, was taken with yellow fever on the 30th of August, and died of black vomit on the 1st of September.

Ada Miller, 9th, a sister of Matilda Miller, aged 2 years, was taken sick with the fever on the 30th of August and recovered. The postmaster attributes the sickness of his children to the fact that they threw themselves upon the mail bag from New Orleans two or three days before their attack.

On the 31st of August, Thomas Carpenter, a sailor, residing at Mrs. Cavanaugh's, who had nursed Hansen and Bailey, was taken with the fever and died of the black vomit on the 5th of September. On the same day that Carpenter was taken sick, Peter Williams, Mrs. Cavanaugh's colored cook, was also attacked, but recovered. These were the 10th and 11th cases.

The 12th case was Amile Celestian, a shoemaker, who was attacked September 1st, and died of black vomit September 9th. Celestian lived on Front street, corner of First, the next house around the corner from Brookshire and Mahoney, the 3d and 7th cases. There were in the Cavanaugh boarding house, at the time of the outbreak: Mr. and Mrs. Cavanaugh, three children, eleven boarders, and one servant. Four boarders, two children and the servant had the fever. Mrs. Cavanaugh had yellow fever with black vomit in New Orleans in 1857. Mr. Cavanaugh claims to have been through three epidemics without having the fever. Of Mrs. Cavanaugh's boarders who remained in the house after the outbreak only two escaped the fever. One shipped for New York, was taken with yellow fever on the passage and died at the New York Quarantine.

The fever first spread along the street fronting the railway on the south side "as directly as if the infection had been shot out of a gun."

When there had been 115 cases and 21 deaths, 82 were found to have been in the immediate vicinity of the first case. This calculation was made by Mr. Cavanaugh, of Morgan City, at the time.

The first case of yellow fever north of the railway was the daughter of William Martin, who resides three squares from the railway. She was attacked September 14th, and died September 15th. This was the 36th case. William Martin kept the coffee house, before referred to, as being on the corner of the street opposite Mrs. Cavanaugh's boarding house. Before Martin's daughter sickened he had assisted to burn the bedding of a yellow fever victim near his coffee house. Martin had the fever subsequently and died.

After the middle of September, the fever spread rapidly over the town. The period of greatest prevalence was from October 7th to 24th. Three or four seamen were taken sick on the vessels at the Morgan City wharf, but all of them had frequented the town before their attack.

Notwithstanding the circumstances attending Hansen's movements and attack were confirmed by Mr. and Mrs. Cavanaugh, by Hansen's physician, by the Mayor of Morgan City, and by the agent of Morgan's railroad and steamships, every other possible source of infection was carefully enquired into. They are as follows:

A Mexican circus troupe, consisting of about 30 persons, their baggage and 17 horses, shipped on board the Morgan steamship, "I. C. Harris," Capt. Brown, at Brazos, Texas, on the 18th of June, 1878. The troupe had been playing at various places in Mexico, and came to Brownsville from Monterey and Matamoras. They played in Brownsville, which was the only place they tarried in Texas. The Harris left Brazos with the troupe on the 19th of June, at 5.30 o'clock in the morning, and arrived at Morgan City June 21st at 6.30 A. M. The troupe took the train for New Orleans at noon that day, and camped at "Lake End," New Orleans, where they played for some time. There was no sickness en route from Brazos, and a careful inquiry made by Dr. Bemiss into the history of the troupe while in New Orleans, did not throw any suspicion upon them as the probable carriers of yellow fever poison.

The steamship "W. G. Hewes," of Morgan's line, Capt. Thos. Morgan, was the only vessel which arrived at Morgan City during the summer of 1878, from an infected port. The Hewes left Havana August 1st, and arrived at Morgan City August 4th. The officers and crew numbered 24. There were no passengers. No sickness occurred on the passage, or subsequently, so far as could be ascertained. The crew were not allowed to land at Morgan City, or any one permitted to go on board, excepting the Quarantine officers. A portion of the crew went by boat, via Bayou Bœuf, to a station on the railroad of that name, — miles from Morgan City, where they took the train for New Orleans. Capt. Morgan went from Morgan City to New Orleans by rail, to engage a crew for his vessel. He engaged the same men who served on the Hewes from Havana, and brought them back to Morgan City by rail, where they immediately went on board the Hewes, then anchored in the Bay, without mingling with any one in the town. On the 11th of August, the Hewes started for Truxillo, Honduras, between which port and Havana, she sailed during the continuance of the epidemic. There was no sickness on board during the passage of the Hewes to Honduras. A cook shipped at Morgan City before the departure of the 11th of August, and died one month later on the second trip from Havana to Honduras. At the time of the arrival of the Hewes from Havana, Mrs. Cavanaugh was sick in bed from intermittent fever, as she supposed. Several of the crew of the Hewes were indebted to her for board, and, on learning their departure for New Orleans, via Bayou Bœuf, she went to Bayou Bœuf station by rail, on the 5th August, to collect the money due her from the seamen. Mrs. Cavanaugh states that she only saw the seamen long enough to receive money from them, and then returned home the same day. After reaching home she had a chill, followed by fever. On the following morning, August 6th, Dr. W. H. Gray was called to see Mrs. Cavanaugh. The following account of the case is from the Doctor's case book, noted at the time:

"The next morning, August 6th, I was called in, and found her (Mrs. Cavanaugh) suffering with severe frontal headache and pain in the eyes, back and limbs; pulse 100, hot fever, and great restlessness. Ordered a hot mustard foot bath, a bottle of solution citrate mag., cool applications to head, and orange leaf tea ad lib.

9, P. M. Fever continues, surface hot and moist; still complains of headache and pain in limbs, but not so much pain in eyes. Pulse, 90. Ordered another foot bath, and if restless and unable to sleep, lig. morph. sulph. one teaspoonful every hour until sleep is induced.

August 7th, 3d day. Passed a quiet but sleepless night; pulse 90, surface still hot and moist, tongue pasty with red edges, not so much headache or pain in the back and limbs. Has had no dejections from the bowels. Took a cup of tea with milk and soon after vomited; mind perfectly clear. Ordered 15 grains of blue mass to be followed by a saline cathartic in eight hours.

7, P. M. No action from the bowels; skin continued hot and moist; pain in head and back not so severe. Ordered one bottle sol. cit. mag. to be taken at once, and during the night to have a mixture of hydrate of chloral and bromide potass. until sleep is obtained.

August 8th, 4th day. Had two dejections during the night. "Very little sleep." Great jactitation; pain in head and eyes severe; head hot, eyes injected; talks continually; anorexia continues; pulse 80. Ordered two grains quinine every hour during the day.

8, P. M. Has had two more passages from the bowels. Pain in head and eyes continues without abatement.

August 9th, 5th day. Slept well last night until 10 o'clock, when she woke, got out of bed, and was found on the gallery. A dose of the chloral and bromide of potass. mixture was given, after which she slept well until morning. Surface cool; pulse 75; eyes still injected, and still complained of pain in the forehead. Tongue still pasty; will take no nourishment.

5, P. M. Condition the same.

August 10th, 6th day. The patient without the slightest pain; anorexia gone; took a cup of tea and slice of toast. Convalescent.

August 11th, 7th day. Had a good night; passed a whitish jelly from the bowels. Appetite good. "Feels perfectly well. The prominent symptoms in the above case were: 1st. A chill. 2d. Fever which continued with greater or less severity until the 6th day. 3d. Pain in the forehead, eyes and back. 4th. Suffusion and injection of eyes. 5th. A soft pulse, at no time exceeding 100. 6th. A hot cutaneous surface covered with perspiration. 7th. The full possession of the mental faculties. 8th. Great jactitation. 9th. The pasty tongue. 10th. Vomiting and nausea. 11th. Complete anorexia. 12th. The passage of a whitish jelly-like stool on the 7th day. Was the case one of yellow fever?"

On interrogating Mrs. Cavanaugh, she stated that she had a similar sickness during last Christmas week and has had similar attacks before her sickness in August last.

QUARANTINE.

The plantation of Hon. C. B. Darrall is situated about one mile from Morgan City. A strict quarantine of non-intercourse was enforced during the epidemic, and no case of yellow fever occurred on this plantation. Cases occurred within one-half mile of the plantation.

The Lawrence family, six in number, all unacclimated, reside about two blocks north of the corner of Front and Greenwood streets, where several cases of yellow fever occurred. Between Greenwood and Brashear streets on Front street is an ice house, and between the ice house and the residence of the Lawrence family, a distance of about 540 feet, there are no buildings of any kind. The Lawrence family had no communication with the people of Morgan City after the appearance of the fever, except through a colored boy, who brought the mail and carried messages. The boy was not allowed to remain on the place. The family escaped the fever.

INDIVIDUAL PROPHYLAXIS.

P. H. Metz, a young man residing in Morgan City, a native of Louisiana, never had yellow fever; slept in an office; did not go into any house where the fever was, but mingled freely with the people on the streets; took small doses of quinine daily, and did not have the fever.

Judge E. B. Mentz, a resident of Morgan City, never had the yellow fever; took small doses of quinine daily; nursed yellow fever patients; suffered more or less from headache during the epidemic, and during two days had a high fever, but did not discontinue his ministrations to the sick. Upon inquiry of a large number of persons who had previously had the yellow fever, and were present during the late epidemic, they state, without exception, that they suffered daily from headache and "felt out of sorts."

B. F. Winchester, Esq., a lawyer residing in Morgan City, took a small quantity of quinine and cinchona bark in whiskey every day and gave it to his family for three weeks after the outbreak. About the 10th of September, they discontinued the quinine and cinchona and relied on "Holman's pads." Mrs. Winchester was taken with the fever on the 29th of September. Their son, ten years old, was attacked October 2d and Mr. Winchester October 3d. The remaining children, seven and nine years of age, were taken about the third week in October. The second case terminated fatally on the seventh day after having had black vomit.

Mr. Winchester was amongst the fever from the commencement of the epidemic to the date of his attack. The mother and children remained at home after the outbreak, except on the Sabbath day, when they all attended church.

Some clerks and employees at the railroad depot and wharf buildings slept at the depot and on the steamship during the epidemic, and none had the fever.

The exemption is attributed by the clerks and employees to drinking water out of an iron tank.

YELLOW FEVER IN ASSUMPTION.

Reported by T. B. Pugh, M. D.

The first case which appeared in my neighborhood was Mr. Vilmont Rodrique, on the 29th of August. First, also, in the parish. This, however, was not my case. In from eight to ten days, there were from twenty to thirty cases in his neighborhood. Many of those who contracted the fever had nursed Mr. R., or visited him while ill, and no cases occurred for some time, except among such. The above instance was one of importation of the disease by fomites. The fomites in first instance were in blankets and woolen goods, which Rodrique had received from New Orleans on 3d and 16th of August. In the second instance, according to Dr. McNeil, the fomites were in the personal baggage of Mrs. Grazian, which was transported by steamboat from New Orleans, and from Donaldson by flatboat.

There was no quarantine until fever had occurred in the parish.

A portion of our parish, known as Bayou L'Ours, has escaped. By authority of Police Jury they were allowed to quarantine against infected places, and against remainder of the parish.

No cases here were of local origin, none which cannot be accounted for by fomites. From these cases the fever spread.

Dr. Beasley was exposed to the fever about six days before he took it. In no other case was the period of incubation carefully noted. No general measures of disinfection were put in practice. Private parties used different disinfectants, carbolic acid, sulphate of iron, pot. permanganate, sulphur, tar, and pitch, and some, simply smoke. I don't think any good was accomplished by their use. Many tried hypo-sulphite of soda, as a prophylactic, others white mustard seed, others quinine in whisky. I do not think these preventives amounted to anything whatever. As many had yellow fever who had taken preventives

as those who had not. I think all atmospheric impurities, proximity to privies, etc., have a tendency to increase death rate. The same is true of malaria, which is often complicated with yellow fever.

The yellow fever poison, so far as I have known, is the same,—more or less severe, but the same characteristics attend its action.

The thermometrical range was between 70° and 80°. Winds were easterly, with moderate dryness, heavy dews at night. Rains were quite frequent, with two or three storms.

According to my experience, fright renders persons more liable to yellow fever, also, excess of any kind.

Blacks resist the yellow fever poison in a much greater degree than whites, mulattoes less than blacks, but more than whites.

I have known no instance of genuine relapse in my practice.

As an instance of second attack, I mention that I had an attack of yellow fever, so pronounced by a good physician, in 1867, and another on 30th September, 1878, when I was attended by Dr. Stone, of New Orleans.

As stated above, the first case in the parish occurred on the 29th of August; the patient had not been to New Orleans, but his brother went there on the third of August, and purchased goods, according to common report. I am certain he was in New Orleans at the time. Again, on the 16th, he received a lot of woolen goods, which were opened and placed on the shelves of the store. In a few days (29th) Mr. Rodrique was taken sick and on the 9th day died. The two physicians who attended him disagreed as to diagnosis, one pronouncing it bilious remittent, the other yellow fever. Subsequent events proved the correctness of the latter view. All his children had the disease, and from thence it spread all through the neighborhood. In Labadieville, fever was brought there by a Mrs. Grazian, who came to New Orleans from Biloxi, and report says, nursed a brother who had the fever. She was taken a few

days after her return and died, and the greater number of her family had it. From this source it spread into Labadieville and surrounding country. Type of fever generally mild; fever lasting from 30 to 70 hours. The mortality in Labadieville was very considerable, about 50 dying out of 150. This was owing, not so much to the violence of the epidemic as to bad sanitary arrangements and want of proper food, medicine and nursing. Labadieville is a small town situated on the Lafourche, about eight miles from Napoleonville. The houses generally frame, and one story to one and a half high, built almost on the ground, ventilation exceedingly bad, privies and residences very close together, with a large swamp immediately in the rear of the village. This swamp has nearly all the time more or less water in it. In 1853, Labadieville escaped, whilst the rest of the parish was invaded by the disease.

Buras Settlement, La.

Abstract of Report by Dr. C. P. Wilkinson.

This place is located on left bank of Mississippi river, about one mile above the Quarantine Station.

No manner of communication had been held with the station. A supposed case occurred in the neighborhood on the 25th of August. The first case in Dr. Wilkinson's practice was 3d September. This was followed by four other cases, all in the same house, occurring September 4th, 5th, 6th and 12th.

These people had received rice sacks from New Orleans about the 28th of August. The sacks were stored in the house where they lived and were used for beds to sleep upon. The disease was limited strictly to this house. Other forms of fever prevailed in other houses of the settlement; but no yellow fever except the cases in this and among those who went to nurse them. Dr. Wilkinson reports the following:

A case of distinct yellow fever came under my observation at the fisherman's camp, on Bayou La Chute; by the ordinary course of travel ninety miles from New Orleans

and fifteen miles from the Mississippi river. The young man had left New Orleans in August, for fear of taking yellow fever. Was visited in his cabin by a friend who left New Orleans with his baggage on or about October 2d, 1878; took two days to reach there. Was taken sick October 6th, being then four days out from New Orleans; was brought out to Mississippi river on October 8th, and died at Quarantine Station on or about October 10th. On October 18th, this young friend camping on Bayou La Chute, cut off from all communication except with fishermen, who only fished oysters in the neighboring bayous and bays, was taken sick on October 21st. I saw the young man; unmistakable yellow fever; he died on October 23d; black vomit, etc.

The following is the abstract of practice from this report: Under 5 years, two cases, two fatal; 5 to 10 years, two cases, one fatal; 10 to 20 years, four cases, none fatal; 20 to 40 years, three cases, none fatal; 40 to 60 years, three cases, none fatal. Total: fourteen wites, three fatal; 21.43 per cent.

Addendum of December 30th, 1879.

Cases of Yellow Fever Occurring in Buras, Plaquemine Parish, La., in 1878, Collected from All Sources.

Reported by Dr. C. P. Wilkinson.

Groups.	No. of cases over 10 years.	No. of cases und'r 10 years.	Cases where Black Vomit Occurred.		Cases where Suppression of Urine.		Deaths of persons under 10 years.	Deaths of persons over 10 years.	Total No. of Deaths.	Total Recoveries.	Total No. of Cases.	Remarks.
			Died.	Recovered.	Died.	Recovered.						
1st...	5	2	2	...	...	...	2	1	3	4	7	Limited to one house.
2d....	5	6	...	...	...	...	2	3	5	6	11	Limited to 3 families in three houses.
3d....	2	...	...	...	...	...	...	...	...	2	2	Limited to one house.
4th...	1	...	...	...	...	...	...	1	1	...	1	Limited to one house.
5th...	2	1	...	...	...	...	...	2	2	...	2	Limited to one house.
6th...	1	...	1	...	1	...	...	1	1	...	1	Limited to one house.
Total	17	7	6	...	1	...	5	7	12	12	24	

Grouped by alleged sources of infection and occurring at different epochs. Group 1st. Reception of large number of empty rice sacks from New Orleans. First case, child, three days after sleeping on sacks. Group 2d. Member of a family living here returned from Pilot Town, ill with yellow fever; two weeks afterwards another member of same family, with all her baggage, returned from same place; four or five days after child taken sick with yellow fever and in short time two more of same family taken sick—members of two other families came to nurse; both returned home sickened and yellow fever spread in each family to all who had not previously had the disease. Group 3d. Two boatmen went to New Orleans and had slept on shore one night—returned and sickened. Group 4th. Origin not alleged. Group 5th. Two boatmen taken sick after leaving New Orleans in their boat. Group 6th. Young man unpacked a trunk of woolen clothing which had come from New Orteans.

I cannot say that I am convinced of the communication of the fever from house to house or by families, as the arrangement would tend to show.

Yellow Fever in Clinton, Parish of East Feliciana.

(*Reported by Dr. O. P. Langworthy.*)

The first case of yellow fever occurred on September 7th, 1878, not in Clinton, but about five miles sout-east, in the person of a planter who was also clerk of registration. He died September 11th.

We have no satisfactory way of accounting for the attack. A negro living on the gentleman's place asserts that the gentleman went to Baton Rouge, and procured goods. This, however, is exceedingly doubtful.

The second case occurred September 27th, the third on September 29th; one case each day of individuals in the same house, who had assisted in nursing the first case.

The books for ward poll books, to be filled out by the clerk from the parish register, were, I understand, sent some time in August, from New Orleans, by steamboat, and

railroad via Port Hudson to Clinton. On these registration books, received as freight from New Orleans, the first case went to work about one week before taken ill.

Our place was quarantined. All persons from infected districts were forbidden to come within the corporate limits for 15 days, and all goods thought to be of a character to convey the germ were forbidden to be brought in. The mayor to decide which were infected districts. There were no violations or evasions of the quarantine that I knew of.

From the following facts I believe quarantine has protected our place from yellow fever. There was not, up to October 1st, any case of yellow fever in the corporate limits, except in one family: Sixteen days after the first case, a child from the family in town, came in contact with a member of the family in the country in which it originated. In two days the member himself was taken ill, and twenty-one days after contact the child in town took the fever. The child in town was taken twenty-one days after contact, and two other cases in the same family, but no more from that or any other family from those.

In three cases the period of incubation was, I have reason to believe, sixteen, eighteen and twenty-one days.

All known measures of disinfection for houses, etc., were used, such as lime, carbolic acid, burning of tar, solution of Ferri sulph., etc. But I do not think they had anything to do with prevention.

All the various advertised measures of personal prophylaxis were resorted to. Many on my suggestion avoided unnecessary exposure to night-air and mid-day sun, also taking two or three grains quinine every morning. A plan that I found most efficacious in 1867, when we had a severe epidemic.

There was at two of the places where the fever prevailed, strong evidence of epidemic influence intensifying itself. The number of cases increasing from four sick in three or four days, to six more of the same family, taken sick in twenty-four hours after, and servants and nurses taken rapidly.

No one escaped who was exposed in that house except one nurse, another physician and myself, and the other physician was but very little in the house, and I had, in 1853, a very severe attack. It only stopped for want of material to work on.

I observed more children, in proportion to the number of cases, than in previous epidemics. They seemed to suffer more from acute pains, and several appeared more like cases of meningitis, than I ever observed before.

I do not know any difference in degrees of resistance to to yellow fever poison, by different races or individuals, as nearly all who were exposed to it took the fever.

There were three cases of previous attacks that I know of, one in which the first attack was in 1858, two in which the first attack was in 1867.

Dr. W. H. Harrison had, I considered, a genuine relapse from an attack at Port Hudson.

The cases in this report were not all strictly my patients. I, however, saw all but four or five. The cases were on four different plantations. Two were so close that they joined fences. The other two from those were: one about six miles south-east, and the other about the same distance in a northwesterly direction. Three of the places were four, five, and eleven miles south-east of Clinton, while the fourth was two miles west of Clinton. There happened, however, to be a mingling of the residents of those four places, that accounts for the spreading in that way. The origin of the first case is still a mystery, and was the cause of my diagnosis of it being doubtful. My time was so occupied in traveling from place to place, and giving the proper attention to the patients, that I could not take notes of the cases sufficient to make a good clinical report. I noticed, however, the temperature and pulse considered characteristic of yellow fever. All that died had suppression of urine, but all did not have black vomit. Three that got well had black vomit, and several that recovered had hemorrhage of nose and gums. I believe more would have got well had they been so situated

as to receive the proper attention in the way of nursing. Another trouble was, that in carrying out the rigid quarantine, which I think saved the town, necessary arrangements to get supplies for any that *might* be taken sick were neglected.

Three physicians were taken ill, one of whom died. These were: W. H. Harrison, M. D., of Iowa, I believe, relapsed soon after arrival, but recovered. Original attack was at Port Hudson.

C. H. Rutherford, M. D., of this parish, originally from Georgia, had a very severe attack, but recovered.

J. I. Cavert, M. D., twenty-five years in this Parish, but originally of New York State, died. He would not give up even when he had the fever on him. He was a noble man, a zealous searcher after knowledge, and never shrank from faithful performance of duty, no matter how laborious or dangerous. He was 53 years of age.

CLINTON, LA., July 23d, 1879.

S. M. BEMISS, M. D.,

Chairman Yellow Fever Commission.

Dear Sir—I return the "provisional table" received yesterday, with only a single remark in regard to the yellow fever in vicinity of Clinton last year. At the time, it was not believed that the case occurring September 7th had been out of the parish for over thirty days. Sometime after the epidemic, however, there was reliable evidence of the gentleman having visited Baton Rouge the week before, but only gone from home part of one day and one night.

Since my first coming to Clinton in May, 1853, two very severe epidemics have visited the town; one in 1853 and one in 1867; also a few cases in 1855. As to a statistical report, I cannot give it. However, you can be safe in saying that there was over 300 cases and 75 deaths in 1853, and over 300 cases and 55 deaths in 1867. The few deaths in 1855 were 2 from exposure in Port Hudson, and 3

from opening a box of bedding that negroes had used in Jackson when sick with the fever. The owner of the negroes, and the bedding, and also 2 others took the fever and died after opening and unpacking the articles. No epidemic, however, followed.

Hoping this imperfect report will be of some service, I remain, Yours respectfully,

O. P. LANGWORTHY.

The following is extracted from the report of Dr. R. H. Day, of Baton Rouge:

In my own practice there were—

Whole number of whites	98
Whole number of Blacks	230
Whole number of Mulattoes	110
Cases occurring before reports were commenced	19
Total to October 26th, 1878	457

NUMBER OF DEATHS.

Whites, 7; Mulattoes, 8; Blacks, 3: Total, 18.
Of these, 10 were adults; 8 children.

I regret that I have not the time to make my answers fuller and more precise. The continuance of the epidemic in our city and surrounding country, and sickness in my own family prevent me, and have long delayed this response.

There are many facts in my possession gathered in this and previous epidemics, which I believe, would be service in your investigation, but I have not the time to give them.

The first unmistakable case which I saw in my own practice was on the 29th of August, had been sick three or four days, when I visited her. She was on North street one-half square east and one square north of the original cases. It is hardly to be doubted, from her known habits, that she mingled with the delegates and visitors from New Orleans, or with the persons first attacked with the disease.

My second case was on the 3rd of September. She was

a mulattress, and had washed the day before some clothes of a child who had died of the fever on the 1st. She lived nearly one-half mile from the place of infection and there was no other case in her neighborhood for some days, and no other source of affection that can be ascertained.

My third case was a white woman, who went to nurse a yellow fever subject on Main street, on the 30th of August. On Monday night, the 2nd of September, she slept on and covered with the bed clothing that had been removed from the patient that day. On the next day, 3rd of September, at 2 P. M., she was very violently attacked; had a severe spell, but recovered. This was her only recognized chance of infection; and if so, her disease was contracted between the 30th of August and the 3rd of September. She went to her residence in what is known as "Cat Fish Town," below Delavodnier saw mill, in which section of the city there had as yet been no case of fever. My fourth case, a woman nearly white, was with this patient on the evening and night of the 3rd, and about daylight was violently stricken down with this fever. Her residence was over a quarter mile lower down, on the river, and that much further from the originally infected locality. As far as I could learn, she had had no other exposure. If so, she contracted a most violent attack between 4, P. M., of the 3rd, and 5, A. M., of the 4th of September.

LETTER FROM DR. DUPREE.

Baton Rouge, July 23rd, 1879.

Dr. S. M. Bemiss,

Dear Sir—Yours of the 14th has been received, and I hasten to reply. I find your table correct as far as Baton Rouge is concerned. We really had no quarantine until we had a number of cases of yellow fever. Dr. Buffington and myself both believe in the importability, the contagiousness and exotic character of the fever. We determined to prevent the assembling of the Convention at Baton Rouge on the 6th of August, 1878, knowing that the fever

prevailed in New Orleans, and that the Convention would be largely attended by representatives from New Orleans. The whisky influence prevented our appointments as members of the Board of Health, until such a time as it was necessary to take care of a number of the sick. Our object was then to isolate the cases, but the seed was too broadly sown by the members of the Convention, scattered as they were over our small town.

Very respectfully,

J. W. DUPREE, M. D.,

President State Medical Society,

Sec'y and Health Officer Baton Rouge Board of Health.

The above extracts are all which can be published at length in this report. It has been a very difficult matter to select those which may be supposed to possess the most interest and value. I shall not assert that I have been altogether successful in my efforts to accomplish this end. It is my belief, however, that the extracts herein published are sufficient to illustrate the mode of spread of the disease. The following table of results of practice comprises the observations of three practitioners in different parishes of the State.

WHITE.

AGES.	NO. TREATED.	NO. FATAL.	MORTALITY RATE.
Under 5.....	8	3	37.50
5 to 10.....	31	8	25.80
10 to 20.....	27	4	14.81
20 to 40.....	61	16	26.22
40 to 60.....	24	4	16.66
60 to 80.....	2	1	50.00
Totals.....	153	36	23.52
COLORED.			
	147	5	3.40

It may be asserted with safety, that in the epidemic of 1878, about 36,000 cases of yellow fever occurred in Louisiana, of which number not less than 6,000 were fatal.

Yellow Fever in Louisiana in 1879.

The first case of yellow fever which occurred in Louisiana in 1879 was a sailor from the S. S. Baltimore. This man was attacked on the 21st of March, and recovered under the treatment of Dr. Loeber, at the Touro Infirmary. No other cases are in any manner traceable to this.

Subsequent events in the history of the disease indicate that the next cases were those in the Stout family, residing at No. 184 Third street. The physician who attended these cases is a thoroughly competent and conscientious man. The sickness, whatever its nature, was mild, and all the cases recovered. The medical attendant admitted that the disease might have been yellow fever, but so mild that he did not suspect its true character. When the servant who left this family fell sick of yellow fever at Mississippi City, questions began to arise in regard to the sickness which had prevailed in the family before she left it.

Whether one believes that the cases in the Stout family were yellow fever, or some other form of sickness, there are two historical facts which should claim our attention. The first is, that the girl actually conveyed the infection from New Orleans to Mississippi. The second is, that the first undoubted case among the citizens of New Orleans occurred in close proximity to the house where the girl had lived. This case was Vicensa Spano, living at the corner of Second and Constance. This young girl was the daughter of a dealer in fruit, and it was alleged that the servant at Stout's frequentlyvisited this stand.

In so far as precedence affords any valuable testimony respecting the origin of the outbreak of yellow fever in New Orleans, the servant at Stout's was attacked three weeks before the Spano case. The family who, in 1878, occupied the premises where the Stout family resided had suffered from yellow fever during the epidemic of that

year. As there was no known exposure on the part of the Stout family to infection from other sources, this instance affords strong ground for the belief that the poison had been in some manner preserved through the winter, to be recalled to life and activity by the warmth of summer.

In 1879 the State Board of Health, the Auxiliary Sanitary Association, and the National Board of Health joined hands in efforts to arrest the spread of yellow fever. The work to be attempted was a noble one, and the field was certainly broad enough to invite concerted action.

The following extracts from a letter written at the date of commencing this joint work, will show the measures agreed upon:

"New Orleans, Sept. 1st, 1879.

Dr. J. S. Billings,

My dear Doctor—When your telegram reached me, announcing appropriation set apart for this city, I immediately requested a meeting of the Board of Health, and we proceeded to organize a plan of work. Estimates will be sent on to-morrow, which will be intended to include all expenditures for this month. They will not exceed $4,000, and will include all expenses for isolation, disinfection, and miscellaneous sanitary measures. The plan of work, as now roughly drafted, is, first, to lay out the infected district so as to include a larger area than that really infected. Thus we include all within the boundaries telegraphed yesterday—St. Charles and the river, Jackson and Louisiana avenue. This area is sub-divided into seven sections, each of which is given to a Sanitary Inspector of the State Board, the whole under the supervision of one of their number, Dr. Bayley, who was yesterday selected by themselves. Dr. Bayley is to make to *me* daily reports of everything done, and everything which occurs. Each section has one sanitary policeman, one light wagon and driver, and four laborers. They are to proceed from house to house in each section, cleaning and disinfecting, whitewashing fences, trees, etc., flushing

gutters, opening drains, cleaning under houses, and rendering everything as sweet, wholesome and cheerful as it is possible to do.

I have striven, in my terrible encounter with yellow fever in the Hood family, to establish a precedent, which should prove valuable in the future. My efforts were, first, to isolate the family by having the gates locked and the servants instructed to keep visitors away. In this I was indifferently successful, for during the confusion which death occasions in a great family, servants would forget or neglect orders. At last, I placed a sanitary officer at the gate.

When Mrs. Hood died, I asked the general to allow me to inclose the coffin in an outer wooden box, and surround it with charcoal. He replied, "Doctor, I leave it all to you, but stay all night by me," which I did and superintended the whole matter, placing the body immediately in the double enclosure. I next asked him to permit the burial to take place at 10 o'clock in the morning, and to have no notice put in the papers, and to have only two carriages. To this he also consented. When he died, I carried out precisely the same programme. No notice was put in the papers, and no invitations sent out. The citizen soldiery here are nearly 3000 in number. They were devotedly attached to Gen. Hood, but contented themselves with permission to select a squad of eight, who had all been through attacks of yellow fever, to meet the body at the grave and fire a volley over their dead General. There were not fifty persons at the grave. The child was treated in the same manner.

The bed-clothes and wearing appparel were thrown into boiling water, fumigated afterwards with sulphur in a room over the carriage-house, and everything of small value burned over a hot fire. The grounds around the house have been swept, washed and chloride of lime scattered profusely around. The rooms of the dead have been fumigated where sickness in adjoining rooms did not prevent. Whenever it did, vessels of moistened chloride of lime were placed in the rooms.

Free ventilation has been practiced during treatment of the cases. At the time of the first attack, there were *thirteen* unprotected persons in the house, four have fallen sick; leaving nine more liable to the disease. Before leaving home, a week before any of them were attacked, I advised the General to watch his family, giving each one a grain of quinine twice daily. This was directed as a tonic, and to substract from any attack of yellow fever the malarial pathological element, if present."

From the above extract it will be seen that this cöoperative work was intended to accomplish three principal purposes, each of which is important to be attained in any successful efforts to arrest the spread of yellow fever .

1st, The prompt and complete isolation of the sick.

2d. The instantaneous disposal of the bodies of the dead, so that no infection shall be communicated from them.

3d. The disinfection of persons, localities, premises and things, of every and any description, liable to become carriers of infection.

While chemical agents were employed as disinfectants, we endeavored to secure all the benefits of the most thorough processes of cleansing. We concluded that if we knew of no chemical agent which could be successfully used in the open air to destroy yellow fever poison, we would at all events, change those conditions of localities, premises and fomites, which appear to favor the preservation of the infection. We believe that the experiment was sufficiently satisfactory to demand its repetition.

The first case which occurred in Louisiana outside of New Orleans, in 1879, was at Morgan City. Louis Aufret, aged five years, was taken sick on the 25th of July, and carried while sick to New Orleans, where he died on the 1st of August. Here again, there is very strong reason to believe that the infection survived through the winter. The child had been in Morgan City about three months, and lived in a house which was infected in 1878. It may also be mentioned that during the epidemic of 1878, twenty-

three cases and fourteen deaths had occurred in the square in which the child resided.

I think it may be positively stated that in all other cases where yellow fever appeared in Louisiana in 1879, the evidence, both direct and presumptive, is in support of introduction by portation.

The following table will show the prevalence and mortality of yellow fever in Louisiana in 1879.

NAMES OF PLACES.	DATE OF 1st CASE.	NO. CASES.	NO. DEATHS	MORTALITY RATE.
New Orleans	Mar. 21	48	19	39.58
Morgan City	July 25	89	25	28.09
Arseneau Place	Aug. 10	45	3	6.05
Bayou Bœuf	Sept. 5	77	21	25.94
Berwick City	" 8	75	16	21.34
Centerville	" 20	44	14	31.81
Deslonde	" 22	39	1	2.56
Deslonde Bros	"	1		
Lafourche Crossing	Oct. 2	40	9	22.50
W. W. Pugh	" 2	33		
Upper Texas	" 6	1		
Mary Plantation	" 10	45	3	6.66
Attakapas Canal	" 10	66	18	27.27
Foley Plantation	" 10	4	2	50.00
Napoleonville	" 11	3	1	33.33
Thibodeaux	" 15	11		
Cypremort	" 17	33	9	27.27
Frezeaux	" 22	2	1	50.00
Malmot	Nov. 1	1		
Phar Place	" 10	6	5	83.35
French Settlement	" 19	60	5	83.30
Pattersonville	" 26	2		
Lower Texas		30	7	23.33
Vivian		4	3	75.00
Blanchard		1	1	100.00
Aucoin Home		6	3	50.00

The whole number of cases in Louisiana in 1879 was 752, of which 162 were fatal, affording a mortality rate of 21.52. The following report will be found of interest.

NEW ORLEANS, Sept. 27th, 1879.

In pursuance of instructions received from Dr. Bemiss, member of the National Board of Health, dated September 22d, I proceeded to "St. Thomas Landing," on the Bayou Lafourche, parish of Assumption, La., to investigate certain cases of yellow fever reported to exist there.

At 2 o'clock, P. M., 23d inst., I arrived at the residence of Theodule Arseneau, a planter, situated one mile from the Bayou Lafourche, in the rear of "St. Thomas Landing," and a short distance—several miles—from Labadieville. The settlement, called in the language of the country, a "brule," anglice, "a clearing" made in the woods by burning, consists of the residence of Mr. Arseneau, the only white family, and seven families of colored laborers, numbering 35 persons. It is very isolated, surrounded on all sides by fields of growing sugar cane.

Two families, Mr. Theodule Arseneau's and his son Marcelin Arseneau's—nine persons in all, occupy the house. It is raised from the ground 3½ feet, clean and dry beneath; is well ventilated and not overcrowded.

Inspection of the surrounding grounds revealed no stagnant water, accumulations of decomposing vegetable or animal matter, or anything whatever offensive to the senses.

The drinking water is obtained from cisterns of ample capacity, is clear, and appeared to the taste destitute of impurities.

The same freedom from offending causes to health was observable in the dwellings and surroundings of the colored people.

I was informed by Dr. Blanchard and the Messrs, Arseneau, that the "bruslé" has always been remarkable for its exemption from disease, even the light forms of malarial usually prevalent in the summer and fall months in the low lands, and that it has never been visited by yellow fever before, escaping in 1878, when it prevailed in Labadieville. No sickness whatever prevailed there this summer prior to the present outbreak of yellow fever.

Louis Chance, a mulatto, residing in the nearest cabin to Mr. Arseneau's house, distant about 200 yards, left the settlement August 3d, on a visit to Morgan City, where he has two sisters residing. He remained there two days, and started for his home on the 10th of the same month. He informed me that on his way up, when near Tigerville, on the Morgan R. R., he was taken with a chill, followed by fever. After a short rest he pursued his journey and was quite sick on his arrival at home. He was confined to his bed and the house for eight days, but was not visited by a physician.

Four or five days after his return his wife sickened with the fever, with symptoms like his own, and at intervals of three or four days, four of his children also fell sick with the fever.

During the sickness of this colored family, the children of Mr. Marcelin Arseneau and his sister, Miss Emma Arseneau, made repeated visits to them. They were there one or two days after the storm on the 1st of September.

On the 13th of September, Mr. M. Arseneau's daughter, eight years old, was seized with fever, preceded by a chill attended with severe headache, pains in the small of the back and limbs, which lasted without intermission for three days and leaving her quite prostrate.

On the 14th of September, Alice Arseneau, six years old, was attacked in the same way, but with greater severity, the fever being very high, with intense headache, restlessness, nausea and thirst.

On the 15th September, Mrs. Theodule Arseneau was taken sick at 9 o'clock at night with chilliness; fever ensuing with all the symptoms attending the attacks of her grandchildren.

On the 16th of September, at 1 o'clock, A. M., Miss Emma Arseneau, aged 16, was taken with a chill, soon followed by intense fever and excruciating neuralgic pains "all over the body."

Dr. Blanchard, residing at Napoleonville, was sent for to attend the family on the morning of the 18th, at which

time he made the following clinical observations of these cases:

"The child first attacked, 8 years of age, was entering the second or calm stage of the fever, pulse about 100, temperature 100½, skin moist, eyes suffused, tongue coated white, edges and tip somewhat red, no nausea or tenderness of epigastrium on pressure."

The second daughter, Alice, 6 years old, taken sick on the 14th September, was very restless, skin hot and dry, much heat and pain in the head, pulse quite frequent, temperature 103½, gums turgid and red, eyes injected and discolored, nausea and tenderness of the epigastrium; had thrown up black vomit; urine albuminous, which increased to fully 20 per. cent. the day after.

The fever lasted five days, leaving her quite weak, with icterosed skin and conjunctiva.

Mrs. Theodule Arseneau was attacked on the 15th September. Saw her at the same time with the above. Her attack seemed to have been quite a mild one; the fever had ceased on the third day, 17th inst. On the 20th, fever returned, temperature ranging from 100° to 102°.

Emma Arseneau, sixteen years old: taken on the 16th inst.; was first seen by Dr. Blanchard on the morning of the 18th; face bronzed, eyes brilliant, very much injected and suffused with yellow tinge; terrible frontal pain; tongue much coated, white in the centre, with edges red and tip pointed and red; pulse frequent and feeble; temperature, 105°.

On the morning of the 19th inst., she threw up black vomit in profuse quantity, which continued occasionally through the night. Urine loaded with albumen, which was tested morning and evening, showing each time an increasing per centage. Hemorrhage from the uterus came on the same day (just two weeks from the last menstrual epoch) and for twenty-seven hours the urine was suppressed.

On the 20th, 10 o'clock, A. M., threw up black vomit for the last time. In the evening found her comatose and

pulseless; died at 7 o'clock, P. M. The body became very yellow after death.

Another child, the youngest, between three and four years old, was taken with the fever on the 20th September; the attack being mild, but presenting distinctive features of yellow fever.

The surviving sick persons were examined by me in company with Dr. Blanchard, on the afternoon of the 23d September, at half-past three o'clock. The convalescing children were doing well; the younger one, Alice, was considerably prostrated, with still a coated tongue, the edges and tip deprived of epithelium and the papillæ prominent; gums full and spongy to the touch; adnata and surface of the body icteric; pulse soft, easily obliterated on pressure and 80 to the minute.

Dr. Blanchard exhibited to me a specimen of the black vomit thrown up by Miss Emma, which showed the distinctive features of the fluid.

This concludes the history of the cases of the fever which had occurred up to the period of my visit in the family of Mr. Arseneau and of his son.

Resuming the history of the propagation of the fever from the initial point of infection—the cabin of Louis Chance—and which relates to its spread among the colored residents of the settlement. The cabin nearest that of Chance is 100 feet to the rear. It was soon invaded; the parents and children, seven in number, falling sick consecutively with a short incubation of two to four days. Thence it spread to the next cabin, also distant 100 feet from the last, where its diffusion through the family pursued the same course and with like periods of incubation.

To the right of Chance's cabin and somewhat in advance, distant in like manner 100 feet, stood another cabin, the occupants of which next fell sick; then those in another immediately adjoining it became ill. From this last the disease spread to a larger house than the others, standing on a line with the premises of Mr. Arseneau, in which all

the members of the family underwent an attack of the fever.

These cabins include, with Mr. Arseneau's house, the settlement, or Brusle. Beyond this, on the other side of a cane field, from a quarter to a third of a mile removed, the fever invaded several other cabins, occupied by colored field hands who had commingled with the residents about Mr. Arseneau's, and in whom the propagation of the infection pursued the same course as in the first described cases.

Interrogating the parents relative to their own cases of the fever and those of the children, I learned that the fever in almost all instances had been mild in its type, no physician having been called to treat them, but that several of the children bled at the nose and from the gums. The whole number of colored persons who had been sick up to the evening of the 23d of September was 35, with no deaths.

The diagnosis of the fever prevailing in this settlement, made by Dr. Joseph Blanchard as yellow fever cases, was concurred in by me after a careful consideration of the clinical record of the cases submitted to me, the inspection of the black vomit and an examination of the convalescents more particularly Alice Arseneau, whose case was a severe and well-marked one, and I so reported to the National Board of Health through Dr. Bemiss.

The source of the infection in the white family of Mr. Arseneau is directly traced to importation from a dangerously infected town—Morgan City—through Louis Chance, and from direct contact and communication it spread from domicil to domicil.

This conceded, however mild the fever manifested in the colored persons attacked, none resulting fatally, it must be pronounced to be with them, as with the whites, yellow fever. Its benign type in them presents a striking physiological difference between the two races in the face of so formidable and destructive a disease as yellow fever.

That so large a number of colored persons should undergo attacks, and the probabilities indicate that none in the

settlement will escape it, is, perhaps, unprecedented and may be due to the fact that this community had never been exposed to an epidemic atmosphere of the disease.

It is well to observe that the secluded and salubrious character of the settlement afforded no security of itself from the danger of the fever spreading through the whole population from the incautious admission of one unsuspected infected person. Sufficient ground for advising active measures being at once put into operation for its isolation. This Dr. Blanchard, as a member of the Parish Board of Health, promised me should be done.

On his representation that the community had not the means of procuring the disinfectants necessary to be used in their premises and out grounds, he was instructed to make application to Dr. Bemiss for relief to this extent, and the articles needed were forwarded to him and will be properly and judiciously applied.

Very respectfully,

J. P. Davidson, M, D.,
Ins. Nat. Board of Health.

Franklin, La., December 5th, 1879.

Dr. S. M. Bemiss, New Orleans,

Dear Sir—In accordance with my promise to you, I submit the following report of yellow fever as it prevailed at Centreville and on the Cypremort prairie during the past autumn.

The town of Centreville is situated on the Bayou Teche, in the parish of St. Mary, five miles below Franklin, and contains a population of about 300 persons of both races. The first death from yellow fever in this vicinity was that of a Mr. Campbell, residing in the family of Mr. Whitworth, and occurred on the 25th of September. Dr. Abbay, who visited this case the day preceding his death, informed me that the patient threw up black vomit and turned very yellow before death. This was regarded by Dr. Abbay as a suspicious case, but as no opportunity had

been afforded for making close clinical observations, he did not feel justified in announcing it as a case of yellow fever.

The second case was Mrs. Huttendorf, who died on the 27th of September, two days after the death of Campbell. I saw this case a few hours previous to her death, with Dr. C. E. Allen, the attending physician, Dr. Ethan Allen, Dr. S. M. Abbay, and Dr. A. S. Gates. The presence of black vomit in abundance, and frequently ejected, the yellow hue of the skin, gaseous pulse, almost total suppression of urine, taken in connection with the history of the case during the three previous days after illness, left no room for doubt in regard to the diagnosis; and the physicians present, without a dissenting opinion, agreed in pronouncing it yellow fever. A small portion of the black vomit placed under a microscope presented clear and unmistakable evidence of the presence of blood; and a half ounce of urine, obtained by means of a catheter, was found to be highly albuminous, upon being submitted to the usual tests.

Ten days after the death of Mrs. Huttendorf, Mr. Felix Senette, one of our best citizens, was taken sick and died, after an illness of four days, with all the prominent symptoms of yellow fever.

Two children of Mr. Whitworth died, one on the 10th and the other on the 11th of October; the disease being as well marked in both instances as in those that preceded them. A third child of Whitworth's had a severe attack, but recovered, as did several others belonging to the same household. From the 11th day of October to this time, eight deaths have occurred in Centreville and the immediate vicinity from yellow fever alone, making a total mortality of thirteen out of about forty cases of the disease.

There is nothing to be said in reference to the treatment adopted by Drs. Allen and Abbay, except that it was strictly in accordance with the most orthodox views and teachings of the profession in New Orleans and elsewhere. One case which I saw in consultation with Drs. Abbay and Allen, I

regard as worthy special mention, because of its being a rare instance of recovery from yellow fever under circumstances that seemed to render the case almost hopeless. The patient, a mulatto, aged about 30, after recovering from black vomit, relapsed nearly a week afterwards and had constantly persistent passive hemorrhage from the gums, nose, stomach and intestines. The use of beef tea and stimulants, together with the regular administration of tincture of iron and fluid extract of Ergot, brought about a most gratifying change in the condition of the patient, and resulted in his complete recovery. As a remedy in the treatment of black vomit and the passive hemorrhages of yellow fever, I believe that Ergot is destined to hold the highest rank. The testimony in its favor, as is published in our Medical Journals, is at least sufficiently important to justify a thorough trial of its virtues in this disease.

All efforts to trace the origin of the epidemic at Centreville have thus far resulted in failure, and in the absence of well ascertained facts, we are compelled to fall back upon what might be considered mere theory and conjectures. It is known that a few days before Campbell was taken sick, a small steamer landed at the saw mill near Whitworth's residence, and that Campbell and others went aboard this steamer. It is also affirmed by some of the neighbors that Campbell had been on a visit to Berwick's Bay, where he might have come in contact with yellow fever. It is a noticeable fact, that every member of the Whitworth household contracted the disease, and that in the family of his brother-in-law, Hildreth, who lived only a few steps off, there were several cases and two deaths. Mr. W. D. Hays, who lived on the opposite side of the road, and his daughter died within a short time of each other, with all the symptoms of yellow fever in its most malignant form. The distance from Whitworth's to Huttendorf's is one-third of a mile, which fact seems to preclude the idea that any connection can be traced between Mrs. H.'s case, and the infection at Whitworth's. The fact that her husband is a merchant and that she was in the

habit of assisting him in his business, suggests the theory that she may have contracted yellow fever from infected goods.

It is a singular fact that no other case of fever occurred in this family, notwithstanding that there were at least five liable to take it. The only explanation of this circumstance is to be found in the fact that every precaution was adopted for the protection of the family, by thoroughly fumigating and disinfecting the house and premises, burning the bedding and other articles in the sick room, liable to preserve the infection, and a complete and careful cleansing of the whole establishment.

Yellow Fever at Cypremort.

Henry Beal, by occupation a merchant, died October 23d, after an illness of five days. His attack commenced with chilly sensations followed by intense fever and violent pain in the head, back and limbs. On the fourth day the fever subsided and he began throwing up black vomit. There was great abdominal tendernesss, and nausea and extreme restlessness continued to the end. The urine, which was almost totally suppressed, was highly albuminous, as shown by the usual tests of acid and heat. There was passive hemorrhage from the bowels, and he became very yellow a few hours before death. This case was treated by Dr. Maguire, who had regarded it from the first as a suspicious case, and warned the neighbors against visiting the store. On the day preceding the death of Beal, a young lady in the immediate vicinity died, under circumstances justifying, in my opinion, the belief that her disease was yellow fever. She was not seen by Dr. Maguire until the day before decease, and he was not at the moment prepared to express a positive opinion as to the cause of death. The fact that her attack commenced with fever and that she turned yellow and had hemorrhage from the gums during the last 24 hours, taking into consideration subsequent events which I propose to relate, leaves no doubt in my mind as to the character of the disease.

On Wednesday, October 22d, Dr. Maguire was called upon to see a son of Mr. F. H. Rodgers, 9 years old, and found him with high fever, headache, pain in back, etc. The usual domestic remedies, such as castor oil, warm teas, etc., had been administered. On calling again, he had "*fly vomiting*," which soon changed into genuine black vomit, and suppression of urine soon followed. The application of turpentine over the region of the kidneys, together with the use of a mild diuretic had the effect of restoring the secretion of urine, and the hypodermic of use 20 minims of ergot arrested the vomiting for the time being. Upon the next visit of the doctor, black vomit had returned, and on the following day death ensued. The second child of Mr. Rogers was seized with the same symptoms October 23d, and the case terminated fatally twelve hours after the death of the first. I saw both of the above cases, in consultation with Dr. Maguire, during their illness. A few days subsequently, Mr. and Mrs. Rogers and brother of the former were taken sick, and the two last died after four days' illness, with all the prominent symptoms of yellow fever. Mr. Rogers had a very severe attack, and was for many days considered hopelessly ill, but is now convalescent, as I am informed by Dr. Gates, his attending physician.

On Saturday, November 15th, I was called to see Mrs. Labauve, residing a very short distance from Beal's store, and nearly opposite the residence of Mrs. Dumesnil, where the first death occurred. This case presented all the prominent symptoms of yellow fever, such as pain in the had and back, high fever, restlessness, abdominal tenderness, yellow skin and vomiting on third day and albuminous urine. Dr. Maguire, who met me in consultation on the fourth day of her illness, remarked that he had never seen a case of yellow fever in which the symptoms were more clearly marked. In addition to the cases above described, some 12 or 15 have occurred to the present time, two of which were fatal. The family of Mr. Theodule Dumesnil, consisting of his wife and eight children were

taken sick within a few hours of each other under circumstances that rendered a correct diagnosis of the disease extremely difficult. The facts as furnished me by Dr. Maguire will appear in his letter immediately following:

Nov. 15. Married daughter of Mr. Dumesnil, Mme. Aristide Broussard, taken sick with 24 hours' fever (Thursday 13) and diarrhœa, fever over on Friday morning, took 4 cathartic pills, acted 9 times, feeling nauseated, took additional dose of oil, which purged her until she had rice water discharges. Was called Saturday, the 15th, to see her for the first time; advised stimulants and starch and laudanum injections, which checked diarrhœa; next day no reaction had set in, but jaundice showed itself; applied blister on stomach, continued restoratives, regretted absence of apparatus to inject blood in the veins. The patient has no suppression of urine, no vomiting, but jactitation, tossing of the arms, suffocating fits, all the train of symptoms showing blood exhaustion. She died on the 19th.

On the 17th (Monday), Mrs. Dumesnil, Florida, Eda, Blanche, Ulysse, Adèle, Maggie, Théodule, children of Mr. Dumesnil, were all taken with fever, vomiting of bile and bilious diarrhœa, diarrhœa giving way to the action of alteratives; fever lasting 24 hours, and leaving them more or less loss of appetite, but all of them going out and running to and fro, to the sugar house, etc., on third day.

Mrs. Dumesnil's case was as slight as the others, but grief incident on the death of her daughter seemed to choke her at times and continued the nausea; on Friday, she took a dose of oil; Friday morning, after having closely examined her and to her reply that she felt perfectly well, induced her, for cheerfulness sake, to leave her bed and set by the fire with the family. It seems she got worse in the evening, and Saturday morning, to my intense surprise and consternation, I found her throwing up black vomit, with suppression of urine. The catheter yielded a tablespoonful, highly albuminous: she had the strawberry tongue, spongy and bleeding gums. Since then symptoms increased in intensity, and patient died at 11½ A. M. How

can we account for all these cases, and what explanation give? I find but one.

On Friday, one of the neighbors of Beal, who, like the Dumesnil family, had left the neighborhood and had only lately returned, was taken sick with genuine, unmistable symptoms of yellow fever. The poison must have been lurking in the atmosphere, and Mrs. Dumesnil's system being below par, instead of entering into complete convalescence like the others, underwent slow poisoning, which in other circumstances she would have resisted. I am led to these conclusions by the observation of two cases in the epidemic of 1867, Escoubes and Lafau, reported by me in Dr. Delery's book on Yellow Fever. These two men had been on a debauch and were taken with diarrhœa (crapulosa, as the ancients called it), which was speedily checked. Instead of going back to their business, they lingered in bed *without fever* or *rise* of temperature; commenced on the third day showing ecchymoses on different parts of the body, spongy gums, black vomit and death, with hardly a few hours loss of consciousness before it: suppression of urine last 24 hours.

A. Maguire, M. D.

The cause of the outbreak of yellow fever in the Cypremort neighborhood, while it is involved in some uncertainty, is yet in my opinion susceptible of a reasonable explanation. There is good reason for the belief that the disease originated at Beal's store, and indeed, when it is considered that the persons who were first taken sick had been there a few days previous, to purchase goods, suspicion naturally looks in that direction for a solution of the mystery. It is known that on the 20th of October, Beal opened a bale of blankets just received from New Orleans, and that on the same day Miss Dumesnil and the children of Mr. Rogers visited the store. I am informed that Miss Dumesnil was seated on the blankets, and that a person present warned her of the danger of doing so, as the odor was strong, and that the blankets might be second hand, and contain in-

fection. There is a suspicion in the neighborhood, apparently well founded, that a negro employed on an adjoining plantation, who had recently been sick with what was supposed to be yellow fever, contracted the disease from clothing purchased at Morgan City. The fact that several well defined cases of yellow fever occurred subsequently on the same plantation seems to strengthen the belief that the negro referred to had something to do with bringing the infection into the neighborhood. It may be important to mention that a few days previous to the seizure of the two Rogers children, a negro woman in the quarters had been sick with what Dr. Maguire believed to be yellow fever, and that she was visited frequently by Mrs. Rogers, accompanied by the two children. Dr. M. thinks that this may afford the correct clue to the disease in Rogers' household, and that it is probably due to some clandestine communication with infected points through the untraceable wanderings of the African race. I have been able to ascertain upon unquestionable evidence, that the suspected blankets at Beal's store were from one of the most reliable houses in New Orleans, and there can be no good reason, in my opinion, for the belief that they had been previously used. It is not improbable, however, that they may have been in the New Orleans warehouse during the epidemic of 1878, and become saturated with yellow fever infection at that time. Similar instances have occurred in previous years, and several have come under my own immediate observation.

My experience and observation may not be extended enough to justify a decided opinion, as to whether yellow fever is or is not a native of the State, but as far as they go, I am convinced that it is not indigenous to any part of the United States. Nor would our country be afflicted with it, but for its importation from its foreign home. Having been brought here, it has flourished under the genial influences of our climate like an adopted child under bounteous surroundings, but it would invariably wither under the first decided frost, and be entirely stamped out before the

first winter month had expired. I might, at the expense of too great length, mention many facts in corroboration of this view, deduced from an extensive practice of thirty years, but will content myself with referring to the almost conclusive one of the complete immunity which both armies enjoyed from yellow fever during the terrible exposure which they had to undergo during the late four years of civil war. Soldiers representing every State and phase of climate known to the United States, composed these two armies. The armies were necessarily exposed to the malarious as well as the most healthy portions of the Southern States, and yet not one case of yellow fever is known to have occurred among them during that protracted struggle. This fact astonished and even perplexed the profession, and was difficult to account for, the most probable solution being found in the very rigid quarantine which Gen'l Butler enforced in New Orleans, where yellow fever had heretofore almost invariably originated.

In concluding this report, allow me to add, that to my mind the history of yellow fever in the United States for the past few years shows that it is no longer, as in the past, a disease affecting certain localities or communities lying in close proximity to the gulf coast, but has become, in its mysterious strides into the interior, a great national scourge, afflicting to the hearts of the people, and interrupting great avenues of trade and commerce, essential to the wholesome development of important industries and the material wealth of the country. Without going further into a discussion of the subject, as to whether yellow fever is indigenous to our soil, or of foreign importation, or whether, having been brought here, it has been propagated to such a degree as to guarantee it a fixed home in our midst (all of which shall and will be investigated by skill and science). I desire to address myself more particularly to the great practical question as to how this terrible scourge is to be stamped out, or, if this be impossible, how it is to be modified and mitigated in its effects. As quarantine officer

of this parish for years past, I am perhaps entitled to an opinion as to the efficacy of quarantine as a means of controlling this disease. I am prepared to assert with the utmost emphasis that my experience demonstrates that a strict quarantine will arrest the march and spread of the disease. Whenever I have been able to establish and enforce a rigid quarantine, the disease was effectually arrested, and when cases occurred within the quarantine lines, they could always be traced to a violation of the quarantine regulations.

But while I regard quarantine as a preventive against the yellow fever, I do not believe that any quarantine will be effectual that is not prosecuted and sustained by the National Government. A quarantine under State authority cannot be a just and proper one, because its necessity involves interests which concern, perhaps, several States, and which are not always so identical as to make any single State the proper judge or custodian of the interests of others; and therefore it is not to be expected that States, perhaps more selfish than individuals,, should protect rigidly a quarantine, to relax which would advance its own peculiar interests. And when it is considered that for more than 2000 miles great States draw their nourishment from the great commercial artery which, beginning beyond civilization and coursing its way through the great States of the North-west down through the fever-stricken South, finds its exit in the Gulf, it is not reasonable that any one of these States, with interests in some important particulars antagonistic, should be allowed to prescribe the regulations respecting a quarantine, that would be just or unbiassed. It is scarcely necessary to elaborate this view. The bare mention will recall to many the selfish, unwarranted and unnecessary restrictions which have been, for personal aggrandizement, enforced by States upon each other. Let us have, then, a quarantine that will be respected. The shotgun arrangement will not answer, and while the State might, with laws to enforce it, establish a

quarantine which in the main would be effectual, yet the authority of the State interested in a quarantine would not be sufficiently extensive to embrace all the requirements of the case. In my opinion, the only power competent to establish and enforce a proper and just quarantine is the National Government. If the National Government will take the quarantine in charge and protect it with law, regulated and directed with skilled intelligence, patriotism, and in a true spirit of justice and equity, yellow fever will either be entirely stamped out or restricted within such narrow limits that it would never become epidemic. Among the many obvious reasons why the National Government should control the quarantine of the country, the following strikes me as the most potent: In order to enforce a rigid and effectual quarantine, it will be necessary to exercise authority, which, if restricted to State lines, will be impotent and useless. An effectual quarantine must be under the control of authority extending over all the States. This will appear evident when you recur to the instances of conflict of views and interests, too often the result of groundless fears and selfish greed, which have occurred, not only between States, but between parishes and cities and communities, acting wholly with reference to local interests, without one element of consideration for the general welfare. The effect of such a quarantine would evidently paralyze and destroy valuable and important interests which are entitled to just protection, instead of wanton and unnecessary oppression. But again, an effectual quarantine involves the expenditure of money which no single State should be expected to incur when all are interested. The epidemics of the last two years not only aroused the sympathies and enlisted the active aid of the whole country, but in a pecuniary and material point of view affected to a more or less degree every section of the United States. Should this not, then, be a sufficient warrant for a National Quarantine? Surely such a provision, directed by judicious regulations and well-guarded restrictions, need find no ob-

jectors. Less than this would prove futile and unsatisfactory.

Very respectfully,
Your obedient servant,
C. M. SMITH, M. D.

The following propositions may be stated in closing this report:

First. There are no facts in this report sustaining a theory that yellow fever is indigenous to any part of Louisiana.

Second. There are no facts sustaining a theory that its infection is capable of a "new creation," or "*de-novo* origin" in Louisiana.

Third. There are no facts sustaining a theory that yellow fever poison has ever become permanently domiciled in Louisiana.

Fourth. Numerous and indisputable facts show that the fellow fever poison has been often imported from foreign countries into Louisiana, and afterwards carried from the first point of infection to other parts of the State.

Fifth. The communication of yellow from one town to another, or from one rural location to another, is effected in one or the other of two modes; (*a*) it is carried in the person of an individual already sick with yellow fever, or who being in the incubative period falls sick after reaching the locality; or, (*b*) the infection is transported in some form of fomites.

Sixth. In no other manner than through one or the other of these agencies can new foci of distribution of yellow fever infection be formed, which are separated by any considerable distances, say two or three miles, from an infected locality.

Seventh. No facts sustian a theory that the poison of yellow fever is capable of being wind-wafted through any considerable interval of space in such a state as to preserve its noxious properties.

Alcohol in the Treatment of Pneumonitis.

By G. G. BUFORD, M. D

[Read before the Morehouse Medical Society.]

Perhaps no abnormal condition is to-day better understood and more fully treated in our systematic works on practice and general pathology, than that of inflammation of the lungs, or pneumonitis. The pathology of the disease, then, will not admit of further discussion, so that I will confine myself purely to the discussion of the therapy that is now in vogue, that is—the tonic regime. But, before going into the rationale of its tonic or alcoholic treatment, let us see if the statistics on the subject bear out the idea that this is, par excellence, the treatment for pneumonitis. The tables given by Jaccoud show that under the blood letting treatment the mortality was 27 per cent.; by tartar emetic and depresents, 26.38 per cent.; by pure expectancy, or wholly abandoned to the *vis medicatrix naturæ*, 7 per cent., and by the tonic treatment, exclusively, only 3.10 per cent. This, then, gives the tonic treatment preëminently the best results. Though no table of statistics can establish a course of medication for the physician to follow under all conditions, yet it shows the results of the different modes, and leaves us to draw our own inferences. We see then, from the figures above quoted, that the tonic treatment has preference over all other therapeutic methods, and, consequently, few physicians now resort to tartar emetic (and, if they do, only in sthenic cases), but support their patients from the very outset to the close of the disease. Thanks, then, to the immortal Todd for directing our attention to a more rational and humane treatment of so prevalent a disease as pneumonia, and also of fevers in general. After Todd gave to the world his experience and results, the medical profession flew from one extreme to another, but happily now the great pendulum of medical opinions and treatment no longer oscilates between such extremes, and the acknowledged treatment is to-day, *per medias vias*. Pneumonitis is, when not com-

plicated, self limited; and its cyclical march is through the three stages of congestion, exudation and resolution, with a marked tendency to recovery when not interfered with. The therapeutic endeavor then is to assist, and not to combat nature. Nearly all patients who die of pure uncomplicated pneumonitis, and there are not many, die either from asphyxia or asthenia, in the first or in the third stage.

There are a diversity of opinions as to the action of alcohol in the animal economy, but it is now generally conceded that its action is three-fold: (1) as a food, (2) as a medicine restraining waste, and (3) as a tonic. Alcohol acts as a food; this is one of the most disputed of all of the physiological actions of alcohol. It is disputed that it can act as a food, since it contains none of the proximate principles that go to build up the body or to supply the waste. "There are two leading opinions," says Dujardin Beaumetz, "as to the action of alcohol, one party maintaining that the larger part of the alcohol injested is burned in the economy; this is the opinion of Leibig, Bouchardat and Sandras. The other party claim, to the contrary, that alcohol undergoes no change in the tissues, and is the position defended by Perrin, Lallemand and Duvoy. Both chemical and physiological arguments have been adduced in support of each theory; the theory of non-combustion is best supported by facts based on chemical results, that alcohol is found unchanged, both in the excretions and tissues. Jaillet has lately shown that in the presence of hæmoglobin and oxygen, alcohol is transformed into aldehyde and then into acetic acid. This reaction, which takes place in the laboratory, should also take place when alcohol is introduced into our systems. This transformation is accomplished by the absorption of the oxygen by the alcohol from the blood and especially from the oxy-hæmoglobulin. Death from an over dose of alcohol is caused by this absorption of oxygen, thereby preventing hæmatosis, and the patient dying of asphyxia.

Oxygen is essential to tissue metamorphosis, and since this

is taken up from the blood by the alcohol, there is no tissue change and the system is supported, not by adding new material, but by the prevention of the decay of the old. Hence, alcohol acts as a food by giving force and restraining waste. The obesity of habitues is accounted for by this prevention of tissue degeneration.

Fever is or is not the result of excessive tissue waste. Alcohol, then, is an antipyretic by its power to prevent tissue oxygenation. Alcohol also acts as a refrigerant by exciting the vaso-motos centres; by increasing the heart's action; by dilating the capillaries of the skin and forcing more blood to the surface, where evaporation of the exuded perspiration takes place, thereby directly cooling the blood.

As there is usually almost complete anorexia, alcohol is useful in giving tone to the stomach, and thereby enabling the patient to take and digest nourishment. For this purpose, it should be given about ten or fifteen minutes before the meal is taken, only slightly diluted with water or in the form of a mint julep.

The tonic and stimulant action of alcohol is accounted for by the fact that it acts unchanged on the cerebro-spinal centres and induces there phenomena of tonicity and excitation. "In short, alcohol supports the vital forces, braces up the tissues, and instead of increasing, lowers the temperature."

In order that the good, and not the pernicious effects of alcohol be obtained, it should be repeated at regular intervals in small quantities, freely diluted with fresh raw milk well sweetened, into which an egg may occasionally be beaten. The quantity, and time of repetition of the dose, must be governed by the age and condition of the patient and kind of stimulant used. Almost any good wine, such as pure brandy, is better than our common whiskey, as it is less liable to produce gastritis. We should always endeavor to know the per cent. of alcohol in whatever stimulant employed.

The one great objection to the employment of alcohol in the treatment of diseases, is the liability of engendering

the habit of alcoholism. I must admit that this is a grave objection, but I have never yet seen a case of alcoholism that could be traced to that origin, and, I contend, that if the stimulant is withdrawn as soon as convalesence has fairly begun, and good nourishment substituted, that there is not one-half the danger that is usually apprehended.

Give your patient plenty of alcoholic stimulants, varied as occasion demands. Give it with the food. Give it with the liquids imbibed. Give it at regular intervals, and in doses to suit the age of the patient. Give that form that you can know contains a constant quantity of alcohol, and the most nourishment. Then, with proper hygenic surroundings, you come nearest following out the indications of nature, and gain the best possible results.

TRANSLATIONS.

Early Diagnosis of the Various Forms of Phthisis Pulmonalis.

By DR. GRANCHER, of Paris.

[Translated from *La Cronica Medico-Quirurgica*, of Havana, by A. MCSHANE, M. D.]

Gentlemen: In the impossibility of treating, in a complete manner, on all the points pertaining to so vast a subject as *tuberculosis*, and of elucidating to you the many complicated problems which refer to its study, I shall select and place before you only what relates to the early diagnosis of the different forms of phthisis pulmonalis. I consider it all the more important to know them well, since a favorable issue may crown the efforts of a therapeusis prudently and vigorously applied in the early stage of the disease. But, before taking up the practical side of the question, I am going to set forth some general considerations, which, though they may appear purely doctrinal, still have an important bearing on therapeutics.

The ancients, even, when they saw an invalid in a cachectic state for one or two years, said that he had fallen into *consumption;* but it is only since Laennec (1820) that we know the exact relation between that state and the pulmonary lesion; he it was who taught us that tubercle follows a certain course, passing through three distinct stages, to which the clinical stages correspond. He taught us, besides, that tubercle appears under various anatomical forms, without losing its fundamental characters; in other words, he established the doctrine of the unity of tuberculosis.

A little later, about the year 1855, Reinhardt, Virchow and Niemeyer, of the German school, attempted to separate caseous pneumonia from tuberculosis; but the efforts of the French school have succeeded in proclaiming, as an indisputable truth, the unity of tuberculosis in spite of its varied phases.

In 1868, the question assumed a new aspect. Villemin, Professor at Val-de-Grace, announced to the Academy of Medicine of Paris, that he concluded from his experiments that tubercle, like poisonous matter, is susceptible of being inoculated into a healthy individual, and capable of reproducing in him the disease from which it sprung, a property due to the presence of a microbe; and the idea of parasitism, applied to tuberculosis, appears anew in science, justifying, to a certain extent, the measures employed in certain countries against contagion, in epochs more or less distant from our own.

From the labors of experimental pathology, accumulated since the discovery of Villemin, we may lay down the following propositions: 1st; tubercle is virulent; 2d, this virulence is due to a microbe which has been seen and cultivated; 3d, animals do not possess the same susceptibility to the morbid agent; in this respect we may establish a scale which runs from the rat, the most apt to contract tuberculosis, to the dog, which is the most refractory, surpassing the guinea-pig, the rabbit, the cow and the monkey. In this scale of receptivity, man is placed between the monkey and the dog; varying much, however, according to the state of his health; when this is not good, contagion is easy.

In view of all this, we naturally feel inclined to regard tuberculosis as a virulent disease properly so-called (since all the morbific germ is found contained in the tubercle), and to approximate it, accordingly, in its manifestations, to other diseases of the same class. There are certainly

striking resemblances, but it is necessary to remember that there are also differences not less important. Let us compare tuberculosis and small-pox, for example. If the latter malady succeed in planting itself in a country in which it has never before appeared, you will doubtless see that the majority of the individuals of the district are attacked without being able to discover any predisposing physiological differences. Tuberculosis makes its selections in another manner; its germ takes quieter, less violent steps, and, above all, does not attack indiscriminately; it requires a suitable soil for its development, and finds it in those constitutions which are the victims of *physiological depravity*, no matter what may have been the conditions which served as the point of departure. And this is so surely the case, that the study of the conditions in which those individuals are placed will easily discover to you those in which tuberculosis may develop, and you will even be able to produce tuberculosis if you succeed in realizing the conditions in a given case.

For this reason, Pidoux has well said that tuberculosis is not a disease which initiates, but it is the *terminus*, the common limit of all impoverished organic states, exhausted and incapable of performing, in a complete manner, the whole of the functions necessary to the maintenance of normal life, and by modifying this soil, making it unfit for the development of the morbific germ, we may be able to prevent the ravages of tuberculosis. With the introduction into the organism of the microbe-germs, whose cultivation will have diminished its morbific potency, we shall perhaps some day succeed in making that organism refractory to the attacks of the disease; but we must not feed ourselves too much on this hope, because if recent investigations, which are an honor to contemporary medicine permit us to hope so, we should nevertheless not forget that the potency of the inoculation of tuberculosis militates against one of the strongest laws of evolution: since the disease is the almost exclusive patrimony of feeble natures, imperfectly endowed, and incapable of becoming the stock of a healthy race, might we not consider it as a depurator, as a sort of inevitable selection? Rather than to decide the question, vaccination would cause it to exchange its position; but, at all events, the future must decide this, since at present we have to contend against the disease with the means at our

disposal; and to succeed in our efforts, we must attack it before it has become too firmly lodged.

But before reaching this point, and as a preliminary consideration of evident utility for more fully comprehending the subject, let us make an incursion to the domains of pathological anatomy, which, in the last fifteen years, has enabled us to advance with enormous strides in a question so much controverted, and whose data, perfectly in accord with clinical evidence, assume all the appearances of certitude; since, if the agreement between them be not perfect, we may be sure that one of the two is in error, or that it is defective.

Pathological anatomy teaches us that tubercle presents itself under four principal forms: 1st, miliary; 2d, gigantic; 3d, with the appearance of a gray, hard, transparent granulation; 4th, in the fibrous form, stationary, or having a very slow development. To these four anatomical forms, other clinical forms correspond: to the first, common phthisis; to the second, caseous pneumonia; to the third, what has been called the granular form; and to the fourth, chronic fibrous phthisis.

You all know how much these forms differ among themselves; so much, indeed, that the German school on the one hand and Empis on the other wished to separate caseous pneumonia and granular phthisis from the above group, in order to make separate morbid entities of them; but you also know that this attempt has failed, owing to the labors of pathological anatomy and of the French school, who have succeeded in preserving irrefragable the doctrine of unity, the honor of which, you are aware, belongs to the great French physician, Laennec.

Another important point, learned from the teachings of pathological anatomy, is the curability of tubercle. This is not, as the German school pretend, a neoplasm inevitably destined to dissolution; far from it, it contains within itself the elements whose growth bears cure in its train; the cellular texture of the periphery may become exuberant, attain a fibrous condition, and, encysting the central part, may permit the tubercle to remain with impunity in the midst of our tissues; so that, if we would not wander from truth, we should call tubercle a *fibro-caseous neoplasm*, thus indicating the two possible modes of termination of its evolution.

Practice shows us this idea of the curability of tubercle to be realized at every step; it is not rare to see individuals

recover health who had all the appearances of incipient tuberculosis, as if the constitution had been powerful enough to withstand the shock, and to disencumber itself of the disease; besides, moreover, autopsies confirm us in this supposition, because tubercles are frequently found in the lungs of persons who have died of some other disease; and Mr. Brouardel, whom the duties of his chair of legal medicine in the faculty of Paris oblige to perform autopsies as numerous as they are various, asserts that it is quite rare not to find tubercles in the lungs of subjects who have succumbed after twenty-five years of age.

The spontaneous curability of tubercle is, then, an indisputable fact: and this idea, so fruitful in all kinds of benefits, I would wish to see engraved on all minds, because we may obtain the same results, if we succeed in discovering the disease at a time when our therapeutic resources can attend to it or influence it.

Pathological histology, in showing us in what manner the evolution of tubercle takes place, teaches us at the same time that it may be easy to curb it in its march. Before constituting those large masses which are in the reach of daily observation, the microscope enables us to observe its germination in the form of a mass of cells: they are the tuberculous follicles or embryonic tubercles which, fusing later on, give rise to common tubercle if they are not very numerous, or to the giant tubercle if their number is considerable and their evolution rapid. There are, then, two periods in the evolution of tubercle, the second of which, designated by the name *agglomeration*, is sometimes very slow in its course, and it is comparatively easy to prevent its appearance.

The same pathological histology has shown us, in the lesions commonly known as scrofulous, the presence of embryonal or adult tubercle; and experimental pathology confirms this discovery, since we find in the caseous matter of scrofulous adenitis and osteitis, the substance most fit to set up (or give rise to) in animals, by inoculation, the various forms of phthisis. You perceive, then, that if scrofula and tuberculosis are of the same family, the latter becomes, indeed, much more common than we think, because the number of individuals attacked with scrofula is so great, that if we wished to destroy those who suffer from it, we would run the risk of annihilating a large part of the human race.

But it is now time for us to draw inferences from those

lessons of pathological anatomy and experimental pathology, for they would not advance us much if we could not discover in the living subject the signs of the germination of tubercle; that is to say, from the time in which, the granulations not having yet fused, we may prevent their union, and by this means arrest at a blow the progress of tuberculosis. Hence, I will not consider those cases in which phthisis is already evident, and in which the diagnosis is easy.

If, for example, a patient present himself to you, complaining of an acute pain in the side which has supervened upon a violent chill, and accompanied with cough, sputa of a certain color and a fever which has become considerable: if you detect, by auscultation, subcrepitant râles and bronchial breathing: if you see that this state ends in the formation of cavities, and that your patient dies at the end of four or six weeks, you will doubtless not hesitate and will be convinced that you have had to deal with a case of *pneumonic phthisis*, or caseous pneumonia.

But events may transpire in quite a different manner, although depending upon the same cause, and those cases, in which error is possible, are those which I am going to offer to your consideration.

Sometimes you will meet with individuals who have, until then, enjoyed perfect health, and whose appearance is robust. I select, preferably, examples taken from that category of subjects, because then the probabilities of error are greater,—individuals in the condition already described, I say, that have been attacked with a chill, accompanied with pain in the side and fever of moderate intensity, and in whom auscultation reveals the signs of a pneumonia: the disease follows with a less rapid course, its train of symptoms is less grave than in the previous case; but, in spite of all this, you will believe it to be pneumonia. At the end of eight or ten days, however, an incomplete defervescence takes place, although the local symptoms persist and drag throughout a week. We certainly have not here to deal with a simple pneumonia, because matters do not occur in this manner in that disease: you would refuse to admit a suppurating pneumonia, because your patient still lives fifteen or twenty days after the pneumonia appeared, and in the midst of your perplexities, you see that convalescence is taking shape and making progress, that the patient is recovering his health, believes himself cured, returns to his work, and lives like a healthy person. Some

months roll by, or even a year, and the patient again presents himself to you, pale, emaciated, coughing and once more beseeching your aid; and then it is easy for you to detect the signs of a unilateral pulmonary tuberculosis, which will no doubt be amenable to your treatment, but which will probably invade the opposite side, and will carry the patient to the grave after one or two years of suffering.

Well, then, I can assure you, without fear of contradiction, that that individual was already affected with tuberculosis during his pneumonia, and that tuberculosis had continued in its evolution throughout the whole period in which his health was apparently perfect; they are not two diseases, one of which has supervened upon the other; it is only one and the same disease of three periods, which I propose to call *tuberculous spleno-pneumonia*, because these terms show us on the one hand the characters of pneumonia, which depend more on the epithelial than on the purely fibrinous element, and on the other reveal to us the nature and evolution of the disease.

[*To be concluded.*]

Reports of Cases.

Backward Dislocation of Radius and Ulna of Three Months Duration, partially reduced. By Professor T. G. Richardson, M. D. Reported by F. W. Parham, M. D., Chief of Surgical Clinic.

Michael Donelly, aet. 23, native of Ireland, sailor, was admitted into Ward 5, Charity Hospital, March 13, 1883, complaining of an injury of the left elbow. The patient, a rather stout, muscular man, said that some days before Christmas last he fell from the rigging of a ship, about 40 feet, to the deck below. The arm swelled greatly, and became quite painful. Some time after this he saw a doctor, who diagnosed dislocation at the elbow and advised

him to come to the hospital. He delayed coming until March 13, as above stated.

Upon admission, the left elbow was found much swollen, tender, rigid and strongly extended, flexion to any degree being almost impossible. Rotation, likewise, was abolished, the fore arm being fixed in pronation. Both radius and ulna were displaced upward and backward, the radius also a little outward and the coronoid process of the ulna occupying the olecranon fossa of the humerus. The bones were firmly tied down in these new situations, considerable force failing to restore them to their natural places. There was no fracture.

In this condition the left upper extremity was of very little use, the loss of flexion and rotation rendering the arm powerless to accomplish the most necessary movements. The length of time the bones had been out of place made it almost certain that the fibrinous deposit and adhesions were so firm as to offer little hope of a successful attempt at reduction. But considering the age of the man and the fact that he was dependent for his living upon his own exertions, Prof. Richardson determined to make an effort to at least *improve* the condition of the arm.

Accordingly, on the following day, March 14, 1883, the man was taken before the class in the amphitheatre of the hospital and thoroughly anæsthetized with chloroform.

Forced *flexion* with the knee in the bend of the elbow, combined with strong pressure upon the head of the radius, failed to effect any dislodgement of either bone.

Preparations were then made for forced extension. Two hooks were fastened into the wood-work, one ten feet on each side, and on a plane with, the table. The patient was placed with the body at right angles to a line drawn from one hook to the other. A sheet, passed around the thorax, was attached by a rope to the hook on the right. The dislocated fore-arm was connected, by means of a compound pulley, with the hook on the left. The patient being now under the influence of the chloroform, the cord was drawn tight, powerfully extending the arm. This exten-

sion being continued, Prof. Richardson attempted, by manipulation at the elbow, to break up the adhesions, which prevented the replacement. Rapid and forcible flexion, the arm being momentarily disconnected with the pulley, was alternated with the powerful extension, an assistant trying at the same time, by direct pressure, to force the bones into place.

The result was an almost complete replacement of the ulna, but failure to move the head of the radius. As all justifiable force had been employed and continued as long as the safety of the arm permitted, the attempt was not repeated.

The operation had lasted over an hour. The apparatus having been removed, the arm was forcibly flexed and bound to the chest for some days.

I examined the arm carefully on May 10th, 1883, the day of his discharge from the hospital, two months after the manipulation. The fore-arm could not be carried quite to the extended position it occupied before the operation, now making an angle of about 130° with the humerus. Flexion, however, was very much improved, it being now possible to flex the fore-arm a little beyond the right angle, whereas, before it could be scarcely flexed at all. Rotation was also improved. He could now, starting from the position of complete pronation. in which the arm was previously firmly fixed, rotate the fore-arm until it reached a line midway between pronation and complete supination. The parts about the elbow were still considerably thickened, but the tenderness had nearly disappeared.

As will be seen by a consideration of the above statements, the man has, by the restoration of certain important movements of the arm, been rendered much more capable of earning his livelihood.

The case has been reported

1st. To show the almost hopeless condition of dislocations of this nature and duration, the very powerful and sustained efforts failing to restore the bones completely to to their proper places; and

2d. To insist, that, even in cases of a few MONTHS' duration, we should not consider the condition incapable of improvement until all the resources of manipulative surgery have been unsuccessfully tried.

New Orleans, July 16th, 1883.

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

PUBLISHED MONTHLY.

Communications relating to medicine are invited from every source. Matters of more than ordinary moment are occurring daily to country physicians, brief reports of which this Journal would be glad to get.

In sending such communications, address DR. RUDOLPH MATAS.

Matters pertaining to business should be addressed to DR. L. F. SALOMON.

Direct in either case to P. O. DRAWER 282, NEW ORLEANS, LA.

EDITORIAL.

A FEW INCONSISTENCIES IN PUBLIC AND OFFICIAL OPINON.

Rarely has the mutability of human opinion been more strikingly illustrated than in the last few years since the dreaded visitations of yellow fever have become the prominent object of sanitary solicitude. "Thirty years ago, they tell us, that fear of yellow fever was unkown among us. In those days people rarely ran away from the disease. Friend visited friend, and neighbor nursed neighbor, as in any ordinary cases of sickness, and the barbarities of the shot-gun quarantine (and we may also add, the non-intercourse policy now followed) would have been deemed a disgrace to a Christian civilization." Yet fear has become a prominent and startling characteristic of yellow fever

epidemics, and public sentiment in regard to its dangers, diffusiveness and communicability have been completely revolutionized since these days. The effects of a few cases of fever suddenly thrust in the midst of our present population would be sufficient to snap its high-strung nerves and throw it into such a convulsion of terror that would be comparable to, if not worse than, that which characterized the disastrous panic of 1878. Nothing could more aptly exemplify the present state of the public mind in regard to yellow fever dangers, than the late scare at Pensacola, and the surrounding country, on the appearance of a few cases of this disease in the Navy Yard and in a boarding house of that city.

Immediately after the occurrence, the wires flashed the news to all parts of the world, and the eyes of the whole nation were turned with alarm and consternation on the ill-fated city. A wall of sanitary guards at once surrounded the infected house, until it was fumigated and burnt to the ground,—the patients themselves, after a thorough disinfection, were sent to a distant locality; a house to house inspection that had been ordered was continued and everything was kept in readiness to suffocate any flame of latent infection that might light up in any quarter of the town. Yet, with all these precautions, the panic spread, and the people, unable to control their fears, were ready to desert their homes and seek safety in immediate flight. It was reported in our dailies that, upon the same day that the news were officially confirmed, over 300 people had left the city. The neighboring towns and villages initiated quarantines, and had the exodus continued, the unlucky Pensacolans would no doubt have been quickly confronted by a glittering barrier of redoubtable shot-guns.

"And all this bluster on account of two cases of yellow fever in a boarding-house on Palafox wharf?" We can hardly describe the scorn and disgust that was depicted on the countenance of a wrinkled old gentleman, a veritable octogenarian of the 'good old Creole days,' when a recent conversation accidentally turned on this subject:

"And do you call this progress? Are these the workings of your boasted modern sanitation? *Moi, j'appelerait ceci le barbarisme, la folie, la lâcheté, mais le progrès—jamais!*"

The crystallized opinion of New Orleans thirty or forty years ago, had just spoken. It finds no echo.

Tempora mutantur et nos mutamur in illis.

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If we approach to nearer epochs, the fickleness of popular opinion cannot be less striking.

Five years have barely elapsed since Dr. Samuel Choppin, then President of our State Board of Health, was censured, ridiculed and vituperated because he dared to impose a protracted quarantine at the mouth of the Mississippi, and boldly enunciated the doctrine of non-intercourse. The press almost to unanimity condemned his practices and views, denouncing them as "ruinous" and "pernicious" to our city; the mercantile community, staggering under the weight of the frightful blow that had just been inflicted upon it by the epidemic of 1878, interpreted the course of the Board of Health as an unbearable menace to its future prosperity, and the populace, swayed as usual by unprincipled demagogues, was ready to look upon the now lamented promulgator of the restrictive doctrines as a malicious person and its declared enemy.

And yet, non-intercourse has become a law established by Gubernatorial decree. The most sanguine and illusory expectations of the "extremist" sanitarian have become facts in the history of our protective system. The wildest denunciators of the "barbarous policy" are now its warm advocates, and that which was repugnant to our population five years ago has been made palatable to our present population. It is, indeed, difficult to realize how so radical a change could have been so calmly effected in the public sentiment.

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Yet, if the opinions of the masses have undergone such remarkable changes, no less oscillatory have been those of

our health authorities. A few years ago, in 1880, the halls of the State House rang with the protesting clamor of our State officials when the proposal of the National Board of Health to establish a National Quarantine Station at Ship Island was discussed at the meeting of the Sanitary Convention held that year. It is really curious to peruse the objections raised by the State Board in its report for 1880, and compare them with the cheerful placidity, if not manifest encouragement, with which it has contemplated and withstood the imposition of the "intolerable burden which the scheme of the late Dr. Woodworth, Surgeon General of the Marine Hospital Service, and founder of the National Board of Health, would entail upon the commerce of the Mississippi river and valley," by the Marine Hospital Service.

We read, for instance (page 60):

"Granting for purposes of argument, that the Board of Health of the State of Louisiana had absolute jurisdiction over the waters of the Gulf of Mexico, to the exclusion of the rights of all States and Nations, that it had control of Ship Island, which is the property of the State of Mississippi, and also the entire coast of Mississippi; even then *the ordering of vessels from the mouths of the Mississippi River to Ship Island would entail such enormous expense in towage, loss of time, and in various accidents by storm and fire as would effectually drive foreign commerce from the Mississippi River annually during the months of May, June, July, August, September and October.*" (Italics our own.)

In a concluding paragraph (page 63), we find:

"Had the propositions of the National Board of Health with reference to the Ship Island Quarantine been accepted by the Board of Health of the State of Louisiana, *the commerce of New Orleans would have been destroyed, whilst the city would not have been protected, as the Ship Island quarantine was scarcely capable of protecting the coast of Mississippi.* (Italics our own.)

Another member, still an incumbent of the same Board, and equally impressed with the importance of our summer

commerce, read a paper which was adopted by this body, as an expression of its sense upon the points covered by it. In it the State Board refused to co-operate with the National Board in ordering *infected* vessels to Ship Island. The following extract plainly reveals the main basis of the State Board's argumentation:

"*Commerce once destroyed, as it would surely be by the enforcement of this strange and unnatural quarantine which is sought to be imposed upon us, we might as well abandon all our rights, powers and duties, for Louisiana would no longer need any protection. It would be entirely ruined, and would soon disappear from the family of States.*" (*!!*)

The protectionist argument, as we might style this quasi anglo-philist rhapsody over commercial rights and interests, notwithstanding the weight accorded to it by its exalted supporters, was not deemed sufficient to kill the Ship Island cause. The following additional reason was selected as the final *coup diplomatique* that would settle the vexed question. The resident member of the National Board of Health received the following reply from the President of the State Board in regard to Louisiana's co-operation in the Ship Island Quarantine:

"The Board of Health of the State of Louisiana possesses no powers except those conferred by the Acts of the Legislature of Louisiana, and such powers can only be exercised in accordance with the laws of the United States regulating the foriegn and domestic commerce of the entire country. The several acts establishing "Quarantine for the protection of the State of Louisiana, March 15th, 1855, February 8 1858, March 16th, 1870, March 24, 1876, and April 20, 1870, *confer no power upon the Board of Health to order vessels out of the waters of Louisiana to any foreign or to any island or quarantine station under the jurisdiction of the United States.*"

"A critical examination of the acts of Congress constituting the National Board, approved March 3, 1879, and entitled, 'An act to prevent the introduction of infectious and contagious diseases into the United States, and to establish a National Board of Health,' and the subsequent 'Acts to prevent the introduction of contagious and in-

fectious diseases into the United States,' approved June 2d, 1879, confer no power, either upon the National Board of Health or upon local Boards of Health, to control foreign and domestic commerce to the extent of ordering ships from the ports of their destination to points beyond the jurisdiction of local State Boards. As the ***Board of Health of Louisiana possesses no such power***, and as the National Board of Health is incompetent to confer such power, the negative reply to second proposition cannot be adduced as an evidence that the Board of Health of the State of Louisiana is unwilling to co-operate with the National Board of Health, in legal, sanitary or quarantine measures."

Yet, this Board that endeavored to prove so clearly and emphatically that it was vested "with no power to order vessels out of the waters of Louisiana," and that feared so intensely that "sending vessels to Ship Island from the Mississippi river (no matter if these vessels would not average in number, 10 per annum, as clearly demonstrated by their own reports), would entail such enormous expense in towage, loss of time and various accidents by storm and fire as would effectually drive foreign commerce from the Mississippi river" during the summer months, had no hesitation in adopting the following resolution at a meeting held July 24th, 1883:

Resolved, That the Governor of Louisiana be and he is hereby requested to issue a proclamation of non-intercourse with ports infected with yellow fever, namely (list added) *and to order all infected vessels out of the waters of the State*, as recommended by him on the 20th inst., to this Board.

We read in the minutes of this meeting, as reported by the daily papers, that "the resolution was put to a vote and adopted, Mr. Booth alone voting no."

We all know what followed these resolutions. All have read the Board's and the Governor's non-intercourse proclamation and many have felt its consequences. The "Merchant," "Buteshire," "Gracia," "Emiliano," "Berna," "Susan Scranton," "Angelita," "Ana Faura"

and "Sidbury," especially bear with them the grateful record of our sanitary gentleness.

How wondrous is the effect of time, even to the bleaching power of two short years!

How miraculously New Orleans, Louisiana, and the Mississippi valley, have escaped from the general commercial cataclysm that threatened to annihilate us upon the realization of the Ship Island scheme!

But even the predictions of sanitary Talleyrands are not infallible. *Humanum est errare*, said the ancients, and the State Board is, after all, human.

Verily, that worthy old utterance has again found fit application: *Tempora mutantur et nos mutamur in illis.*

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But, forgetting for the present this brief narrative of inconsistency, let us consider for one moment the final outcome of the wranglings, personal hostilities and acrimonious discussions that have characterized the period of sanitary reform in New Orleans—the non-intercourse policy. Now that the leading commercial bodies of our city appear to have recognized the *comparative* insignificance of our summer trade with tropical and other ports, are we ready to welcome its complete embargo? Are we ready, as sanitarians, to say that so revulsive a measure is needed for the protection of the public health? Assuredly, no. Yet we are willing enough to accept it as a more tranquilizing guarantee from the dangers of yellow fever importation than would have been offered to the people of New Orleans and of the Mississippi valley, had the functions of the Mississippt River Quarantine been allowed to continue our main protection, as heretofore; and, though fully recognizing that non-intercourse is a medieval method of protection, that it is of barbarous origin, that it is retrogressive in its tendencies, and amounts to a virtual recognition of the incapacity of sanitary science to cope successfully with the prevention of disease (though sanitary science is far from conceding this elsewhere), yet we must

accept it as a temporary measure of precaution, and particularly as the most effective means of allaying the uneasiness of a nervous and easily agitated population. In view of the distrust with which the people of the valley states contemplate the present State Board of Health, and of the lack of confidence generally manifested in its ability to guard and protect the valley against the intrusions of disease, a radical protective measure, such as the one in question, is justifiable, and should be tried for such a length of time as may test its efficacy as a yellow fever preventive, or at least until the valley states will have regained sufficient confidence in our sanitary authorities to allow of the application of other less barbarous and gentler methods of protection.

Correspondence.

New Orleans, July 20, 1883.

Editors New Orleans Medical and Surgical Journal:

I desire a little space in your journal for answer to a criticism which appeared in your July number upon a previous article of mine, also published in your journal, upon "Some Debatable Points in Small-pox and Vaccination." On the whole, I find no ground for complaint against my critic as regards either temper or candor, and am glad to number him among my personal friends; nor am I strenuous about having the last word in a controversy; but it seems to me that the subject will bear a little more discussion, and I promise to avoid prolixity.

While there appears to be a difference of opinion between Dr. Dupree and myself about the *spontaneous origin* of vaccinia, it might possibly be reconciled, if we were to accept the same definition of the term. It is usual to call

events spontaneous, when we have no satisfactory way to account for them, but the application has been very much narrowed from its former use, and is likely to be still further curtailed. If this is his meaning with reference to so-called spontaneous cow-pox, we might agree; but if he means that such a case has no connection with a previous case of variola or vaccinia, we must differ, for it is easier for me to confess ignorance of the precise means through which a contagious disease is contracted than to admit that its specific contagion is an original creation, perfect and mature. Moreover, as vaccinia is habitually propagated among cattle by the implantation of either the variolous or vaccine virus under the skin, and never has been intentionally produced through the medium of the atmosphere, it is easier for me to believe that so-called spontaneous cow-pox has been accidentally produced by unintentional implantation of one or the other virus, than to suppose that it has been contracted through the atmosphere, like small-pox among human beings.

As to Dr. Dupree's claim, that bovine virus gives more lasting protection from small-pox than humanized virus, I think the time has not come either to prove or disprove it. Bovine vaccination is still too recent to settle its comparative merits in this respect. But even admitting its superiority, all its advantages could be secured by returning to this source of supply every year or two. This, in fact, was the plan proposed and adopted by the late Dr. C. B. White, during his administration as President of the Board of Health of the State of Louisiana. He regarded such an annual recurrence to the original source as an advantage in energy of action, though he did not fail to observe the greater liability to fail altogether in this mode of vaccination; and for general use by officers of the Board of Health, humanized virus was then employed, as it is now.

I was not ignorant of the cases of vaccinal syphilis brought to light by the researches of Mr. Jonathan Hutchinson, and do not deny their authenticity, nor that of a long series of cases which occurred in Italy nearly thirty years

ago. Mr. Hutchinson's second discovery of such cases was published in the *London Medical Record* of February 12, 1873, and these I supposed were the most recent on record, until a few days ago, when I found in the *British Medical Journal* of May 2, 1874, allusion to the prosecution of a medical man at Hamburg, for communicating syphilis to a child which he vaccinated in August, 1873. So it appears that I was within bounds in dating the Hutchinson cases more than ten years back, but not quite so in the general statement that no one had occurred in ten years, if the Hamburg case be a real one, of which I have seen no confirmation. At any rate, I do not retract the statement, that the danger of vaccinal syphilis is practically inappreciable.

In my remarks upon the uncertainty of bovine virus, I spoke chiefly of New Orleans, where my personal observation lies, and where the corroboration of medical men is almost universal. There is also abundant testimony to the great severity, in numerous instances, of the bovine virus, and to occasional abnormalities in its action. At the last meeting of the New Orleans Medical and Surgical Association, I called for statements upon the results of Dr. Zayas's vaccinations of children with the bovine virus propagated by him; and the response was unanimous that failure was the rule and success the exception, even in primary cases.*

On the whole, then, I find nothing to retract, save possibly the assertion that no case of vaccinal syphilis had come to light in the last ten years, since there is some evidence of a single case in the year 1873; but this does not affect the value of the deduction, that there is no good foundation for the prevalent scare about vaccinal syphilis, and that this panic, like many another disease-panic, has been created and fostered for commercial purposes.

As to compulsory vaccination, I shall not say a word in opposition, but would cheerfully sustain any law to this

* Since the above was written, I am informed, by a private letter from a friend in one of the country parishes, that he has recently used 10 bovine points from the Baton Rouge establishment, all of which gave negative results.

end. I simply believe it would not do much good where there is no general registration of births. The results usually ascribed to legal enactments in this country I think attributable rather to house-to-house vaccination aided by moral suasion, and powerfully sustained by prompt and inflexible removal of cases to the pest-house. The pest-house, like the penitentiary, is a potent argument for controverting the depraved notions of people about the property and lives of their neighbors, and they should be used with equal severity. Small-pox is quite as preventable as *hoodlumism*, and not less baneful. I believe it would be very wholesome to make this disease a personal disgrace, and visit it with confinement in a secure place until cured. While there may be some doubt about the right of society to forcibly vaccinate, in anticipation of danger, there can be none about its right to put away an actual menace, like a case of small-pox. This kind of management, in my opinion, is as sensible and effectual as the extraction of an aching tooth.

Respectfully yours,

S. S. Herrick, M. D.

International Medical Congress, Eighth Session, Copenhagen, 1884.

Messrs. Editors of the New Orleans Medical and Surgical Journal:

Reminding you, that the Eighth International Medical Congress (according to the notice already published some months ago in the medical journals) will be held in Copenhagen from the 10th to the 16th of August, 1884, we have the honor of communicating to you, that the General Organizing Committee, formed for the preparatory work, is composed of the following members, living either in or near Copenhagen:

President, Professor Dr. P. L. Panum; Secretary-General, Professor C. Lange; Secretaries, Dr. O. Bloch, Dr. C. J. Salomonsen and Surg. Gen. John Möller;

Honorary Treasurer, Professor Dr. E. Hansen Grut; besides the presidents of the special committees of the Section of Anatomy, Professor Chievitz; Physiology, Professor Dr. P. L. Panum; General Pathology and Pathological Anatomy, Professor Dr. C. Reisz; Medicine, Professor Dr. F. Trier; Surgery, Professor Dr. Holmer; Hygiene and State Medicine, Dr. E. Hornemann; Military Surgery and Medicine, Director-General of the Medical Department of the Army, Salomon; Mental and Nervous Diseases, Professor Dr. Steenberg; Obstetric Medicine and Surgery and Gynæcology, Professor Dr. Stadfeldt and Professor Dr. Howitz; Diseases of Children, Professor Dr. Hirschsprung; Opthalmology, Professor Dr. E. Hansen Grut; Diseases of the Skin and Syphilis, Professor Dr. Haslund; Diseases of the Ear, Dr. W. Meyer; Diseases of the Throat, Dr. W. Meyer.

The special committees, whenever they found it useful, completed their number by members living outside Copenhagen, partly in Denmark, partly in other Scandinavian countries.

In order that the meeting of so many distinguished medical men, whom we hope to see on this occasion, may be as advantageous as possible, the Organizing Committee, following the example of the later Congresess, will communicate with distinguished men of different branches and of different countries, in order to prepare a programme. This programme, as well as the rules, will be forwarded to those of our colleagues whom we suppose take an interest in the work of the Congress, and who might be inclined to participate in it.

In order that the programme may be ready as soon as possible, we would be pleased, if communications, referring to the work of the Congress, were sent to the undersigned Secretary-General before the next 1st of October, so that it may be possible for us to properly arrange them in the definite programme.

The programme and rules will be forwarded, as soon as possible, to every one qualified to participate in the Congress,

who, within the limited time, has announced to the Secretary-General his interest in the Congress, and his eventual intention of participating in it, if possible also, which section he specially intends joining.

C. LANGE, *Secretary-General.*

P. L. PANUM, *President.*

Copenhagen, June, 1883.

Secretary's Office,
Plaquemines Parish Medical and Surgical Association.

PLAQUEMINE PARISH, LA., June 13th, 1883.

Editors New Orleans Medical and Surgical Journal;
Baronne Street, N. O.:

Gentlemen—I enclose, as instructed, extract from minutes of last meeting of our Association, in reference to the death of Dr. Jno. Dickson Bruns, with the hope that you will give it a place in your JOURNAL as a tribute to the memory of our friend.

Extract from Minutes of Meeting held May 29th, 1883.

* * * *Resolved*, That the Plaquemine Parish Medical and Surgical Association expresses its deep regret at the death of Dr. Jno. Dickson Bruns, recognizing therein the loss to the medical profession of one of its brightest ornaments and most genial gentlemen.

Resolved, That by his death, each member of this Association loses an esteemed and valued personal friend.

Resolved, That a copy of these resolutions be transmitted to the family of Dr. Bruns, and also be published in the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL. * * *

A true copy. GEO. F. B. HAYES,
Secretary.

Editors New Orleans Medical and Surgical Journal:

The following resolutions were adopted by the Franklin Parish Medical Society, with the request that you publish them in your JOURNAL:

Resolved, That Act No. 31, passed by the Legislature of the State of Louisiana, is condemned by this Society as not only useless and detrimental to the profession, but also as legalizing quackery throughout the State.

Be it further resolved, That we condemn it as the most damaging blow which the country members of the profession have received for years.

Yours, etc.,

W. H. Rosendale, V. P.
W. M. Guice, Secretary.

Society Transactions.

MINUTES OF THE PRIMARY MEETING OF UNION PARISH MEDICAL SOCIETY.—Organized June 6th, 1883.

In compliance with a request published in the Farmerville papers, several members of the medical profession met in Farmerville, La., on the 6th of June, 1883, for the purpose of organizing a Medical Society.

By favor of Dr. C. T. Hines, a suitable room was secured, where, by invitation, all the physicians present assembled.

The object of the meeting being partially explained, a temporary organization was effected by appointing Dr. R. Roberts, Chairman, and Dr. W. N. Grace, Secretary.

Dr. Roberts having accepted the chair, more fully explained the object of the meeting. Expressions from various members approving of, and promising co-operation in the permanent establishment of said Society were then advanced. Dr. Hines presented a form of regulations, by-laws, etc., for the government of said Medical Society, which was read by the Secretary, and upon motion was subscribed to and adopted before further participating in the proceedings.

On motion, the ordinary rules were suspended and the following permanent officers were elected by acclamation, viz: R. Roberts, M. D., President; W. W. Barnes, M. D., Vice-President; W. N. Grace, M. D., Secretary and Treasurer; C. T. Hines, M. D., Corresponding Secretary. The Society being permanently organized, Dr. Hines offered the following resolutions, which being read, were adopted, viz:

Whereas, The laws of the State of Louisiana permit certain persons to practice in the profession of medicine, surgery and obstetrics upon the simple and frail structure of merely a certain amount of experience.

Whereas, The law permitting merchants, grocers or other persons, unqualified and ignorant of the science of medicine, to sell the same in packages or otherwise, and without the payment of any license, is rewarding those who ignorantly deal in the practice and sale of medicine by giving them great advantages over the medical profession, that the same has worked injuriously to mankind and is dangerous to the interests of health and life, which has been too shamefully demonstrated throughout our entire State, therefore

Be it resolved, That it is the sense of the Medical Association of the parish of Union, Louisiana, to cleanse and purify the profession by encouraging an acquisition of a thorough knowledge of the science on the part of every practitioner and druggist, and thus raise and exalt the profession to that high standard to which it should be, of which it is so well deserving, and which the interest of mankind so greatly demands.

Resolved, 2d, That we ask the aid and co-operation of the State Medical Association and of every citizen of the State (for all are equally interested) to use their influence in promoting this interest, and recommend that portion of Sec. 3 of Act No. 3 of the Acts of 1882, permitting female practitioners of midwifery, and other persons to practice medicine or surgery in this State without diplomas who have practiced medicine for a period of five years, be repealed, and that all persons be prohibited from practicing midwifery, surgery, medicine or any branch thereof, with-

out first having obtained a diploma from a medical institution of good repute in America or Europe, and complying with Sec. No. 1 of said Act No. 31 of 1882, and that all persons be prohibited from selling medicine who have not first obtained a diploma from some medical institution of good repute, or a diploma in pharmacy, and be required to comply with Sec. 1 of Act No. 31 of 1882, as is required of regular practitioners of medicine, to give evidence of diplomas and registering; that Sec. 6 of said Act be amended so as to include druggists who fail to comply with said requirements in the same responsibility, and to limit them to same rights and exemptions.

Resolved, 3d, That this association adopt the code of ethics of the American Medical Association, as well as the ordinances as adopted by said Association.

Resolved, 4th, That this association adopt and strictly adhere to the rules regulating pecuniary acknowledgments for servicesand an established rate of professional charges for services, and that it be deemed a point of honor to adhere to these rules with as much uniformity as circumstances will admit, and any member failing to comply with said rules, to be regarded as violating his trust and forfeiting his honor.

On motion, the code of ethics of the American Medical Association, previously adopted by this Society, were read, for the benefit of all present.

Dr. C. W. Hodge moved that a committee of five be appointed by the President to draft, for adoption at next meeting, rules regulating pecuniary acknowledgments for professional services. Motion being carried, Drs. Hines, Barnes, Grace, Brooks and Castlebury were appointed on said committee; and on motion, Dr. Roberts was added to said committee.

On motion, which was unanimously carried, that a copy of the proceedings be furnished THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, with a request to publish same.

On motion, the Society was adjourned, to meet in this place on the fourth Monday of this month.

W. N. GRACE, *Rec. Sec'y.*

Reviews and Book-Notices.

A Treatise on Insanity in its Medical Relations. By Wm. A. Hammond, M. D., Surgeon-General U. S. Army (retired list), Professor of Diseases of the Mind and Nervous System in the New York Post-graduate Medical School; President of the American Neurological Association, etc., etc. New York: D. Appleton & Company, Nos. 1, 3 and 5 Bond street. Sold by Armand Hawkins, 169 Canal street. [Price, $5.]

Few recent medical works have received more attention than the one before us. For a long time expected by specialists, its final advent has been greeted with pleasure, as its interesting and instructive pages have proved it a worthy representative of American psychiatric literature, and on a level with the expectations of the profession.

Dr. Hammond has encompassed, in the limits of 767 pages, the accumulated knowledge of seventeen years instruction on insanity, and we may well say that he has produced a monumental work, and one of the most lasting that have emanated from his prolific and gifted pen. In his preface, Dr. Hammond apologetically refers to his claims to authority in the subject of insanity. We can safely say that no one, after perusing his book, will venture to object that, "not being the superintendent of a lunatic asylum, he has no business to set up as an authority on insanity, much less to write a book on the subject." The pioneer neurologist of America has other claims to recognition besides those furnished by his seventeen years' professorship of nervous diseases in the "four Medical Colleges of New York city." The master hand is too deeply and indelibly imprinted on the pages of this admirable production, to doubt for one moment that its author is not only an authority, but also a very eminent authority on the subject discussed in this treatise.

In the preface, the author presents his reasons for adding another volume to the store of medico-psychological

literature, and briefly points out the distinctive features of the present production.

Dr. Hammond has been long convinced that the term "insanity" has hitherto been applied in altogether too limited and illogical a manner. The impression generally exists in and out of the profession that in order to be considered the subject of mental aberration, "a person must, at some time or other, present certain marked symptoms which he cannot avoid exhibiting, and which are sufficient to indicate to the world that he is not in his right mind."

"Starting from the points that all mental phenomena are the result of the action of a healthy brain, and that all abnormal manifestations of mind are the result of the functionation of a diseassd or deranged brain," he cannot see why these latter should not be included under the designation of 'insanity,' as much as the former are embraced under the term 'sanity.' "There can be no middle ground, for the brain is either in a healthy or in an unhealthy condition. If healthy, the product of its action is sanity; if unhealthy, 'insanity.'" * * * "There is a large proportion of the population of every civilized community, composed of individuals whose insanity is known only to themselves and perhaps to some of those who are in intimate social relations with them, who have lost none of their rights, privileges or responsibilities as citizens, who transact their business with fidelity and accuracy, and yet who are as truly insane, though in less degree, as the most furious maniac who dashes his head against the stone walls of his cell. * * * *There are very few people who have not, at some time or other, been medically insane.* It is true, therefore, that the horror of the word should be dissipated and that the fact should be recognized and acted upon, that a disordered mind is just as surely the result of a disordered brain as dyspepsia is of a deranged stomach," etc.

It is in order to elucidate this peculiarly broad view of insanity, that Dr. Hammond devotes a good deal of space to the study of his so-called perceptional insanities,—simple

illusions and hallucinations, in which, if the intellect should be for a moment deceived, the error is immediately corrected. Fortunately for the world, "very little of such insanity comes under the signification given to the word by lawyers and the public generally," and though these ephemeral perversions of sensory impressions (which are apt to occur in all of us) "constitute the primary form of mental aberration," they are not, as the author unavoidably concludes, "of such a character as to lessen the responsibility of the individual or to warrant any interference with his rights."

Dr. Hammond divides his book into four sections:

Section I, consisting of 11 pages, dwells upon the general principles of the physiology and pathology of the human mind; section II is devoted the consideration of instinct, its nature and seat; a chapter in which a great deal of interesting, though scarcely pertinent, matter is interculated (21 pages); section III, sleep (83 pages), highly interesting but superfluous; section IV, description and treatment of insanity. In this considerable attention is given to the definition of insanity; after citing Hoffman's, Bucknill's, Maimon's, Prof. Gilman's, Thomas R. Cruse's and Spitzka's definitions and commenting upon their defects, he concludes by adopting Cruse's definition as modified by himself, thus: "A psychic manifestation of brain disease *unattended by a loss of consciousness.*" This definition in turn is not without faults, and as a distinguished critic has pointed out, it does not include transitory frenzy, certain phases of paretic dementia, of alcoholic insanity, of the epileptic psychoses, *raptus melancholicus*, and stuporous insanity; for in all of these consciousness may be, and often is entirely abolished.

In regard to the classification of mental diseases, Dr. Hammond says: A classification such as can be made at present, can pretend to no more than to arrange the several forms of mental derangement into groups, possessing some one prominent feature in common. His division of insanity, however, into the seven groups: (1) perceptional;

(2) intellectual; (3) emotional; (4) volitional; (5) compound; (6) constitutional insanity, and (7) arrest of mental development, is, in many respects, very weak and contradictory, and we regard it as inferior in practical value to Spitzka's symptomatological classification, as elaborately expounded by him in his late presidential address before the N. Y. Neurological Society.

We would like to dwell long upon this important work; it has given us much pleasure in its perusal, and we can confess that though we have frequently encountered many assertions that appeared to us without a very solid foundation, and in strong conflict with orthodox authority, yet we have not failed to be impressed by the remarkable power of demonstration, the analytical and descriptive ability of Dr. Hammond. Few writers, indeed, and especially in this era of dry and matter-of-fact positivism in medicine, teach with the clearness and brilliancy of this author; and fewer still, of the didactic teachers of the day, have the happy faculty, so admirably developed in the present instance, of interesting and captivating the attention of their readers, in that all-absorbing manner so essential to the easy comprehension and profitable elucidation of obscure or difficult knowledge.

In thus alluding to the great merits of this teacher's work, it must not be supposed that we are actuated by any special enthusiasm wrought up by the brilliancy of the literary composition; that, fascinated by the *raconteur's* art, so wonderfully possessed by our author, we have allowed our pleasurable impressions to misinterpret the scientific value of the work. Far from this, fully aware that a good deal that is interesting, but not strictly pertinent has been introduced, that the exuberance of anecdotal illustrations over-burdens the essential part of the work and supplants much that could be made more profitable to the sober knowledge seeker; that the definition and classification of insanity—and other of most prominent features of this volume—are defective; that the practical management of the Insane is not as thoroughly taught here as might have been

expected; still, recognizing fully these and other minor faults, we are ready to welcome the present volume as the most lucid, comprehensive and practical exposition on Insanity that has been issued in this country by an American alienist, and furthermore, more superficial, though it be, than some other trans-atlantic treatises, it is the most instructive and assimilable that can be placed at present, in the hands of the student uninitiated in psychiatry. The instruction contained within its pages, is a food thoroughly prepared for mental digestion; rich in the condiments that stimulate the appetite for learning, and substantial in the more solid elements that enlarge and strengthen the intellect.

Publications Received.

A Treatise on Therapeutics, comprising Materia Medica and Therapeutics, with special reference to the application of the Physiological Action of Drugs to Clinical Medicine. By H. C. Wood, M. D., etc. Fifth edition revised and enlarged.

Excision of the Knee-Joint with reports of twenty-eight cases. Illustrated. By George Edgeworth Fenwick, M. D. C. M., Montreal.

A Rectal Obturator. By David Prince, M. D., Jacksonville, Ills.

Abstract of a Paper on Nose-Cough, and the existence of a sensitive reflex area in the nasal mucous membrane. By John N. Mackenzie, M. D., Baltimore.

On a Hitherto Undescribed Malformation of the Naso-Pharynx. By John N. Mackenzie, M. D.

On the Treatment of Gunshot Wounds of the Abdomen in Relation to Modern Peritoneal Surgery. By J. Marion Sims, M. D., LL. D., etc.

Answers to Practical Questions on the Subject of Diptheria. Reprint from *Therapeutic Gazette.*

Reports of Proceedings of Illinois State Board of Health. June 29, 1883.

Miscellaneous Items.

Treatment of Ulcer of the Stomach.—In a very obstinate case that had resisted all ordinary modes of treatment, the following plan procured relief: Complete rest in bed; a teaspoonful of Brund's liquid essence of beef, or a teaspoonful of Valentine's beef juice in a little cold water, in small quantities every four hours; a wineglassful of milk and lime-water (mixed in equal proportions), to be taken frequently, and the body rubbed with oil morning and evening. The essence and milk were very gradually increased, and when pain had gradually subsided a little sponge cake, bread, barley water, arrow-root, etc., were allowed. Stimulants of all kinds interdicted. Medical treatment:

℞ Ferri Tartratis, - - gr. viii.
Tr. Calumbæ.
Tr. Conii.
Glycerinæ - - - - aa. M. xv.

M. in one ounce of water. Three times daily.

No aperients allowed. After a time the mixture was replaced by 15 minims of Bravais' dialysed iron, three times a day. Dr. F. P. Atkinson, Practitioner.

Dr. Thomas Dwight, of Bowdoin Medical College, succeeds Dr. Oliver Wendell Holmes as Parkman Professor of Anatomy.

It is reported that Dr. H. P. Bowditch, of Boston, has been elected Dean of the Harvard Medical School.

Dr. John C. Dalton, of physiological fame, has resigned his chair in the College of Physicians and Surgeons of New York. Dr. John G. Curtis, for many years his assistant, has been called to succeed him. The best wishes of the profession accompany the distinguished teacher in his regretful retirement.

Prof. Theophilus Parvin, formerly of Louisville, Ky., now of Jefferson Medical College, has reason to feel gratified at the universal appreciation of his merit that has been displayed by the medical press throughout the country.

Prof. Benjamin Ball, the distinguished Parisian Neurologist, has been elected a member of the Academie de Médécine.

Germany and France were united over the body of the Count de Chambord, but did not agree as to his condition. Professors Billroth, Dratsche and Bamberger came all the way from Austria and Germany to view him, and Vulpian, with other eminent Parisians, have been in consultation. It was agreed that he was obese, had fatty heart, and gastric derangement. Some have said that he was suffering from phlebitis.—(*N. Y. Med. Record.*)

A change has lately taken place in the editorial staff of the *Louisville Medical News*. Dr. L. S. McMurtry, who ably directed the editorial columns of our contemporary, has severed his connections with that paper. Dr. Cottell, formerly of the *News*, will take his place.

The *Polyclinic*, a new journal conducted by the Faculty of the Philadelphia Polyclinic and Post Graduate College, promises to be one of the many valuable medical publications of the Quaker City.

At the meeting of the Royal Medical and Chirurgical Society of London, held June 12th, Dr. Henry J. Bigelow, of Boston, was elected Foreign Honorary Fellow, as were also Prof. Charcot, of Paris; DuBois Raymond, of Berlin, and M. Louis Pasteur, of Paris.—(*Med. News.*)

M. Pasteur's Cholera Commission, to proceed to Egypt, will consist, it is reported, of M. Roux and M. Thuillier, of Pasteur's laboratory, M. Strauss, of the Faculty of Medicine, and M. Nolaco.

M. Archambault, so well known through his contributions to pædiatry, has died in Paris. He was a physician to the *Hopital des Enfans Malades*, and like his master Trousseau, was exceptionally successful with the operation of tracheotomy. His death was occasioned by a long and painful illness.—(*N. Y. Med. Journal.*)

It is rumored that the eminent syphilographer and pathologist, Mr. Jonathan Hutchinson, F.R.S., is about to retire from the position of Senior Surgeon to the London Hospital. He has been appointed Emeritus Professor to the Medical School, and will deliver a course of lectures on surgery each session.

The American Neurological Association held its Ninth Annual Meeting in New York, June 21, 22 and 23. The following gentlemen were elected offcers: Dr. Isaac Ott, of Easton, Pa., President; Dr. W. R. Birdsall, of New York, Vice-President; Secretary and Treasurer, Dr. R. W. Amidon, of New York; Councillors, Drs. V. R. Gibney and M. J. Morton, of New York.

Dr. E. C. Seguin is now traveling in Spain, where he has been inspecting the Asylums for the Insane. He says of the Spanish physicians: "Whatever their faults as alienists, everywhere the visitor was met by the asylum officers with the most extreme courtesy and the most complete readiness to show everything, good and bad, to the guest."

Dr. Spina, Koch's opponent, has been appointed Professor of General and Experimental Pathology, at the University of Prague.

The medical colleges of the United States, now in existence, number 110, while the total number in Canada is only 9. The schools of the United States graduated 4,299 out of a total of 12,454 matriculants. (*Gaillard's Journal.*)

The *Texas Courier of Medicine* has issued a prospectus in which it is promised that a Texas journal, "devoted to enlightening Texas practitioners on all practical points connected with diseases peculiar to the Southern climates," will be issued monthly, at Fort Worth, Texas. Drs. F. E. Daniel, formerly of Jackson, Miss., and E. L. Stund, of Atlanta, Ga., will be editors.

METEOROLOGICAL SUMMARY—JULY. STATION—NEW ORLEANS.

DATE.	Daily Mean Barometer.	Daily Mean Temp'rature	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.
1	30.072	82.7	69.3	.....	....
2	30.071	82.8	71.3	.....	....
3	30.075	80.3	77.7	.....	.30
4	30.096	82.0	76.0	.....	.11
5	30.145	79.4	77.8	.....	.22
6	30.116	82.5	74.8	.....	....
7	30.086	82.3	77.0	.....	....
8	30.082	81.3	78.0	.....	.10
9	30.122	80.2	81.3	.....	1.25
10	30.082	80.3	83.7	.....	....
11	30.022	81.9	75.2	.....	....
12	30.007	83.8	68.0	.....	....
13	30.020	84.5	67.2	.....	....
14	30.017	84.5	70.3	.....	....
15	30.034	85.2	63.3	.....	....
16	30.076	85.2	64.7	.....	....
17	30.153	85.8	57.8	.....	....
18	30.167	88.5	61.8	.....	....
19	30.072	86.5	50.8	.....	....
20	30.032	86.0	61.2	.....	....
21	30.127	82.9	70.0	.....	.05
22	30.206	81.1	76.0	.....	.76
23	30.182	84.0	69.7	.....	....
24	30.101	82.3	76.3	.....	....
25	30.038	84.5	73.8	.....	....
26	30.033	83.5	71.5	.....	.50
27	30.106	82.8	73.0	.....	....
28	30.108	84.3	69.3	.....	.02
29	30.042	85.2	69.5	.....	.02
30	30.045	85.8	69.5	.....	....
31	30.091	86.3	63.5	.....	....
Sums	.....	....	....	.....	....
Means	30.085	83.5	70.6	.....	3.33

GENERAL ITEMS.

Mean Barometer, 30.035.
Highest Barometer, 30.244-23''
Lowest Barometer, 29.968-12''
Monthly Range of Barometer, 00.276.
Highest Temperature, 94.1.
Lowest Temperature, 74.5.
Greatest daily range of Temper't., 16.0.
Least daily range of Temperature, 9.2.
Mean of Maximum Temperatures, 90.3.
Mean of Minimum Temperatures, 77.0.
Mean daily range of Temperature, 13.3.
Prevailing Direction of Wind, S.W.
Total Movement of Wind, 3,982 Miles.
Highest Velocity of Wind and Direction, 27 Miles, N.W.
No. of foggy days, —.
No. of clear days, 13.
No. of fair days, 16.
No. of cloudy days that no rain fell, —.
No. of cloudy days on which rain fell, 2.
Total No. of days on which rain fell, 15.
Dates of Lunar Halos, 10'' 11''

COMPARATIVE TEMPERATURE.

1873	82.4	1878	84.1
1874	81.4	1879	82.9
1875	81.8	1880	81.7
1876	83.4	1881	84.4
1877	83.7	1882	80.5

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	6.27	1878	6.21
1874	12.93	1879	7.04
1875	6.57	1880	1.22
1876	4.73	1881	6.97
1877	6.41	1882	6.84

M. HERMAN, *Signal Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM JULY 28TH, 1883, TO AUGUST 25TH, 1883, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia	Total Mortality.
July 28	0	16	14	21	2	140
August 4	0	8	23	13	1	138
August 11	0	11	16	16	1	125
August 18	0	7	14	19	3	120
August 25	0	13	19	12	2	116
Total	0	55	86	81	9	639

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

OCTOBER, 1883.

ORIGINAL PAPERS.

Reflex Nervous Influence, and its Importance as a Factor in the Causation and Cure of Disease.

BY D. T. SMITH, M.D.

[Read before the Orleans Parish Medical Society.]

It is easy to see that as complexity of organization and differentiation of function advanced with the progress of evolution, such nervous connection became necessary between different organs as would enable them to act together and instantaneously for the common good. This necessity was supplied by the acquirement, on the part of the nervous system, of the power of transmitting excitations to the nearest distributing center, and out along another path to produce irritation and contraction in the muscle whose contraction was necessary for the proper protective act. Along with this also was developed the capacity to direct to injured parts such alterations of nutrition, such reparative influence, as the good of the organism might require.

This property of the nervous system, known as reflex influence, may be regarded in two opposite aspects, as bearing upon the relation of the individual to its environment, according as such relations take the character of

defense or offense—escape from danger or the pursuit of prey.

As the immense majority of actions of even the strongest and most ferocious animals are and have ever been defensive, it follows that we should expect to find the structures and functions relating to defense much more complete than those of attack.

Keeping this deduction in view, we will glance severally at the different structures and functions connected with the special senses and general sensation. First, as to the sense of smell. Through this sense but few poisonous articles of food could reveal themselves, and the animal pursued would be expected to be enabled, by other senses than that of smell, to escape from the pursuer. Consequently, we find the sense of smell most acute in the carnivora, and they alone can afford to have an offensive odor. The edible animals must have but liitle odor, not to suit the stomachs of their captors, but to elude the scent of their pursuers. It would therefore not be necessary that the nerve of smell should have extensive and intricate structural relations with other nerves. This we find to be the case. The olfactory nerve is scarcely more than a lobe of the brain with most limited connection with other nerves at its origin, its only connection being by a few fibers with the optic nerve in the optic thalamus.

The sense of sight is another that is employed mainly in pursuit of sustenance. True, like the sense of smell, it is of advantage for escape, but it is clearly of more advantage to the pursuer than the pursued. It might be urged also, as in the case of smell, that the best sight belongs to carnivorous animals. The optic nerve might then also be expected to be wanting in the intimate connections at its origin that would favor extensive reflex action. And such we find to be the case: its connections within the brain being only with the olfactory nerve in the optic thalamus and some filaments of the third nerve in the tubercula quad regemina. In this connection with the third nerve is illustrated the utter helplessness of the sense of sight as repre-

sented by the optic nerve. The entire protection of the eye itself is placed in charge of the third, fifth, seventh and sympathetic nerves.

Now, it is of vital importance that the eyelids should be quickly closed in the face of danger, and that the pupil should contract quickly in the presence of strong light, in order to protect the retina. We find that the third nerve supplies the circular fibers of the iris, the only instance perhaps where a cerebro-spinal nerve supplies involuntary muscle. The facial supplies the orbicularis palpebrarum; yet, what would all this avail if the retina had to depend upon its own deep connections in the brain, with these structures, for calling them to its aid in case of threatened and impending danger? Only the olfactory could thus know it in time, and it could give no help. Fortunately, the third and fifth, which are both closely united with the seventh in the medulla, send each a twig to the ophthalmic ganglion and from this ganglion a sentinel in the shape of a small filament is sent to penetrate the optic nerve with the arteria centralis retinæ, which doubtless signals to the various guards the approach of danger.

It might have been noted also, that the olfactory nerve is not entrusted with the office of its own protection, but the presence of dangerous substances is manifested to the branches of the fifth nerve, spread out on the Schneiderian membrane.

The sense of hearing is one of very great value, both in a defensive and offensive aspect: for in the pursuit of prey and in escape from danger, it is alike useful. We should expect then, that the auditory nerve, unlike the two just considered, would be found possessed of very extensive anatomical connections with the nerves of greatest importance to the vital functions. And such is the case. It has a very extensive origin from the medulla and the surrounding parts about the floor of the fourth ventricle, the great citadel around which the forces of life are marshalled.

A principal endowment of animal life from a very early period, if not from the beginning, must have been common sensation.

In the beginning all the vital functions were performed by the integument. It has been said of the amœba, that it ate without a mouth, breathed without lungs, digested without a stomach, crawled without legs and defecated without an anus. In short, it performs all the functions of its order of life without a single special organ.

Gradually, as these functions became specialized, and special organs became developed for their performance, the integument relinquished participation in the active work, but retained to a very considerable extent a controling influence in their performance.

In the animal so high up in the scale as the batrachian, respiration may still be carried on entirely through the skin. Higher in the scale this function is transferred almost completely to the lungs. Yet even with man oxygenation of the blood takes place to some extent through the skin, as is readily seen in the change which takes place from blue to red in the corpse a short time after death.

But much more important than this direct action of the skin, is the control it exerts over the lungs through reflex nerve influence. The inspiratory effort incited by dashing water into the face of those in whom there is suspended respiration, is a matter of common observation. But the continued performance of the function of respiration seems to require the access of oxygen to the skin, or of some gas to keep up a kind of osmotic action. The fatal effects of varnishing the skin of rabbits, and the case of the boy who was covered with gold leaf with fatal result, on the occasion of the dedication of St. Peter's Church at Rome, are known to every physician. I cannot believe, with Carpenter and others, that the fatal results in these cases are due to the retention of poisonous materials in the blood that would otherwise have been excreted by the skin. I cannot conceive that if all the exudations of the

skin for the period named were collected at once and thrown into the blood, they would produce death or even serious derangement. The rather I would believe that the function of control by reflex influence, which the skin has retained over the processes of nutrition, from a remote past, has been abrogated: a function which stands like a placard upon the door of a deserted shop, announcing to the passing oxygen that the business of respiration has been removed from its old stand, the epidermis, to its new office, the better-ordered mucous membrane of the lungs. And not only is oxygenation thus affected, but likely all the secreting glands and the entire complex process of nutrition and assimilation.

It may not be out of place to add a few other instances of reflex acts that are physiological, in order to strengthen the claims of still others as being pathological.

Of such a character is the lowering of the temperature of one hand by exposing the other to cold, the desire to urinate caused by stepping into water, and also the tendency this has at times to suggest an action of the bowels. Of such, also, is the reciprocal exchange of excitation between the mammæ and the genital organs. Another and very complex illustration is supplied by the action of the pudic nerve in its various distributions. Irritation of the skin of the clitoris or penis sets in motion a far-reaching group of reflex actions, and in the higher animals at least involves a series of reflex centers: first in the cord where the nerves are given off that form the sacral plexus, then in the medulla and most likely the corpora striata and optic thalami. It is said to be a common occurrence for emission of semen to take place with men who are hung; and any one who has suspended himself by the arms to the utmost of his might has felt an eager thrill somewhat akin to the sexual orgasm. These phenomena are all somewhat related to epilepsy. Indeed, the orgasm itself seems to be the physiological essence which, in a perverted state, becomes the disease epilepsy.

I pass over reflex pain as a symptom, for though a rich

field, it is not exactly germane to the title of our paper, and would require altogether too much time to consider.

As regards diseased conditions produced by reflex nerve influence, and especially proceeding from the integument, I will instance ulcers of the duodenum, produced by extensive burns of the chest.

In 1871, in an article read before the College of Physicians and Surgeons of Louisville, I maintained the view that these ulcers were caused by a derangement in the nutrition of the duodenum, produced by a disturbance in the reflex influence exercised over it by the skin.

The view urged was, that all of the internal organs, but especially those supplied by the pneumogastric nerve, are affected to a greater or less degree in the same way, but that the resisting powers of the parts other than the duodenum were greater for various reasons. That the lungs and stomach are more vascular, and by their constant motion prevent congestion occurring with great frequency, while the liver and small intestines, bladder and kidney, are free from cerebro-spinal nerve supply, except that derived through the sympathetic plexuses as vaso-motor nerves. To complete the theory, it was necessary to assume that the duodenum does have a direct supply of nerve power from the pneumogastric, and that its vital resistance from the causes mentioned, and perhaps others, being out of proportion to the irritation suffered by it, the result is that it gives way more frequently than the other parts. No one was convinced, and I held to it myself only as a tentative hypothesis, to await the discovery, by some one, of the necessary nerve connection. I am now pleased to find that so able a medical philosopher as Ranney, following in the footsteps of Hilton, can at least join me in similar expectations. "It would therefore," says Prof. Ranney, "be an additional confirmation of a general nerve distribution if the distribution of the abdominal nerves to the intestinal covering of peritoneum could be fully verified; since the structures which assist in moving the adjacent organs—the abdominal muscles—would be supplied from

the same source as the organs, as well as the skin over those muscles.

But in whatever way the nerve connection of the various internal organs with the skin may be kept up, I am satisfied that a very large proportion of curable diseases is produced by reflex disturbance and impairment of the vitality of internal parts, caused by injuries to the terminal filaments of the nerves distributed to the skin.

As an abundant illustration of this, we may take the variety of diseases commonly attributed to colds.

What a world of pathology is involved in this class of diseases. We are commonly taught to believe that the effect of a cold is to arrest excretion by the skin, and that the deleterious matters thus thrown back on the circulation poison the blood and thus produce various forms of disease. But, by the theory here presented, and which I believe to be the true one, the impairment of vitality produced by the interference upon the cutaneous nerves is at once reflected to all the correlated internal nerves and their relation to the nutrition of the parts supplied by them is at once unfavorably modified. We may, in such a case, have albuminuria from affection of the kidneys; in the female the derangement may spend its force in suppressing the menses: endo-, or peri-carditis may result; or it may be a bronchitis, a pleurisy, or a pneumonia. In other cases no particular organ will yield, and a feeling of general malaise will be the expression of the injurious influence.

If a bronchitis results from exposure to cold, we hardly look for pneumonia; if a pericarditis, we do not expect a pleurisy; in short, whenever there is one of this class of diseases present we do not expect to find the others, except in constitutions greatly vitiated.

Another and very well known illustration of reflex influence in the production of disease is that of sympathetic ophthalmia set up in a sound eye from cyclitis in the other, through the instrumentality of the ophthalmic or ciliary ganglion: the optic nerve here again showing its deficiency as regards reflex influence.

So-called metastases, also, are not unlikely instances of disease produced in a reflex manner. Such, for instance, are the transference of inflammation to the mammae and testicles in mumps; to the testicles in gonorrhœa, and to the kidneys in operations on the uretha. This, however, it must be admitted, is an unsettled point.

Without presenting other instances which medical literature abounds with and to which I can add nothing new, I will proceed to a consideration of the indications of treatment drawn from the views herein advocated. In most of them I can do nothing more than approve the treatment generally adopted. For instance, we all agree in poulticing an abscess. Let us see that we also agree as to the rationale of the action of the poultice in such a case. Surely, no part of the poultice is absorbed into the cavity of an abscess that may be two or three inches or more from the surface. Yet we know that its maturity is greatly hastened by the treatment. The rationale of its action, it seems to me, is based upon the principle of the distribution of nerves, so well elaborated by Hilton, viz: "that the nerves which supply the skin supply also the muscles under the skin." The action is one that is purely reflex. The vitality and nutrition of the nerves of the skin are by this means exalted, and this exaltation is reflected to the deeper parts, and causes there a hastening of the vital processes of repair. For the same reason no one would blister over an abscess; it would only make it worse. In two ways it would do so; first, it would produce an injurious reflex action, and second, it would, by the continued pain it caused, concentrate the attention of the nervous system to the part, and thereby cause increased flow of blood. And this attention need not be a conscious one.

"*Ubi irritatio ibi a fluxus*," is a maxim as old as Galen.

Wherever there is irritation there is a flow of blood, not perhaps blindly because of the irritation, but because the pain concentrates and fixes the attention of the nervous system to the part, and inaugurates in this way efforts

which primarily aim to repair, but which may pass beyond and become forces of destruction.

It becomes, then, often quite as necessary to destroy the capacity of the nerves for pain by excess of pain, as it is in others to sooth them.

It has been said, in ridicule of homœopathy, that if its teachings are true, burning a burn should cure it. Now, burning a burn will cure it; and how? First, we shall inquire how a burn pains more than a clear cut, involving the removal of the same amount of tissue. Nerves, by the process of burning, are not abruptly destroyed at the ends, but in a jagged manner. This leaves a very much larger exposed surface than if they were squarely severed. If, then, I hold a slight burn to the fire until the termini of the nerves are evenly paralyzed, I remove the pain and by properly regulating the reflex action, induce prompt repair.

So, if we use a solution of soda, of salt and alum or bi-sulphide of carbon, and apply it until all the jagged ends of the nerves are evenly robbed of their pain-bearing power, we deprive the burn of the irritation which determines to it an excessive flow of blood, and to the greatest degree promote healing.

The success of this treatment in the case of limited burns would suggest the propriety, in cases of extensive burns, of putting the patient under the influence of ether, and applying chemicals to change the character of the injury; preferably the substances already named.

In such diseases as pneumonia or pleurisy, I would and always do follow out the same principle, where practicable. That is to obviate, as much as possible, persistent pain and give rest to the injured nerves. This seems to be best accomplished by applying to the chest, over the injured part, clothes wrung from hot water, as hot as they can be borne, and to be renewed every few minutes. This, in the first place, causes a shock of external pain, and thereby withdraws the excessive concentration of reparative forces from the lung or pleura. In the second place, by the shock of pain to the cutaneous nerves, it impairs, by reflex

action, the pain-carrying power of the nerves supplied directly to the inflamed viscera, and finally there is exercised, by moisture and warmth, a soothing influence on the cutaneous nerves, which is reflected as a soothing force to the organs affected.

But never a blister, which does harm, and only harm, which keeps up a constant pain and reflected irritation, and is only too faithful an ally of the original disease. If I must have a blister in acute pneumonia or peritonitis, grant me, by all means, the privilege of placing it upon the heel, and if upon the heel of the boot, I shall be all the better pleased.

Whatever of pain may be left after this diligent application of warm clothes, I would relieve with opium, which moderates inflammation because it relieves pain, and with it the concentration of attention that causes excessive flow of blood to the part.

Constant pain in a part may, by reflex action, eventually produce proliferation of nerve, as in the case of corns and irritable ulcers, and their best treatment is likely that which keeps this principle in view.

In the treatment of continued fevers where there is a coated condition of the tongue and likewise of the stomach, a more extensive employment of reflex influence might be advantageously resorted to. It is well known that the flow of gastric juice into the stomach is promoted by the taste, sight or smell of pleasant food.

It is a question therefore, whether we should not see to it that all these senses are carefully catered to, in such diseases; that we may promote as much as possible the reflex vital changes that tend to strengthen digestion.

It might even do good, in such cases, to coagulate the epithelium of the tongue with such an agent as Monsel's salt, and peel it off, that the nerves of taste could be made more available.

It would seem that many expectorants act in a reflex manner. Every one knows how quickly a warm meal will affect the discharge of mucus from the lungs.

A little liquorice, tolu, or other similar substance will promptly promote expectoration, though it is not easy to see how they could reach the mucous membrane of the respiratory passages.

But the subject expands, and I must hasten to a close. In conclusion, I will only add that I am pleased to have seen the time when medicine as well as surgery has placed gentleness and rest among the foremost of its maxims. That it has been put in harmony with the gentle influences that must ever result where force has the unrestricted range of time and space, and that in every age and every clime have caused men to dream of a millennium.

Reflex Action from Local Irritation.

By F. FORMENTO, M. D.

(Read before the Orleans Parish Medical Society, July 30th, 1883.)

At our last meeting we had the pleasure of listening to a very interesting paper, read by Dr. D. T. Smith, "On the Relations of Reflex Nervous Action to Disease." In this learned communication, our confrère dwelt chiefly on the sympathy, both in health and disease, existing between certain organs and apparatus, and offered quite a number of interesting and conclusive facts, showing varied and extraordinary phenomena resulting from reflex action.

This paper of Dr. Smith called to my mind several cases of "reflex action," I have had the opportunity of observing in my own practice, and as this question of "morbid reflex action" is rather new, and but comparatively few cases, as far as I know, have been reported, I have thought the particulars of some instances in my practice, might not be uninteresting to you. They will serve as a new illustration of reflex action from local irritation, upon some of the general systems, particularly the nervous and digestive, and will tend to confirm some of the views expressed at our last meeting.

Out of several observations, I have chosen *two*, which I will now lay before you. The first is a case of sympathetic hystero-neurosis of the stomach from local irritation of the genital organs, which I observed in my practice several years ago; the other, which occurred recently, is a case of partial paralysis from congenital phimosis. I invite discussion on these observations, in the hope that your remarks and experience will throw further light and information on the subject.

First Case. Mrs. Amelia P., of good constitution and apparently healthy, was married at the age of twenty-one. Previous to marriage, menstruation was regular but somewhat painful. With this exception, apparently so insignificant, she was in excellent health. During the first weeks following her marriage, there was nothing specially worthy of mention. Menstruation not showing itself as usual, Mrs. P. was supposed to be *enceinte*, this supposition being corroborated by the existence of such symptoms as occasional vomiting, irritable disposition, capricious appetite, etc.

But menstruation took place two or three months after, rather dispelling all suspicion of pregnancy. There was about the same amount of pain during her periods as before marriage. Vomiting continued, and soon became more frequent and more constant; it increased gradually until there was scarcely a day without it, and it often repeated itself several times during the twenty-four hours. At first the patient would only vomit in the morning, when the stomach was empty, but in a short time this distressing symptom showed itself at irregular hours, after as well as before a meal. The slightest cause, physical or mental, would sometimes provoke it, such as a disagreeable odor, the sight of an unpleasant object, a slight moral impression. There was no great uneasiness during vomiting, no tenderness or pain in the epigastric region, and a complete absence of other symptoms indicating any organic disease of the alimentary apparatus. As a consequence of the continued vomiting, nutrition soon became greatly im-

paired; the patient lost flesh; there was extreme prostration, with anæmia, excessive nervous irritability, perversion of moral and intellectual faculties—in brief, all the results of a prolonged anæmia condition in a nervous and irritable subject were noticeable.

After a few months, the disorders of innervation went so far as to produce convulsions, with complete loss of consciousness; general, and at times partial anæsthesia, or, during certain attacks, extreme hyperæsthesia, such as to cause the patient to start and jump at the slightest touch, as she would have done under the shock of a strong electric current. On many occasions I noticed the above described phenomena, as well as the following: A tetanic rigidity of the muscles of the back, neck and extremities, which could not easily be overcome; at times there were phenomena of catalepsy—the rigidly contracted muscles would retain for hours the same position, while at other times the body would rotate for hours, from one end of the bed to the other; at times again trismus would be noticed, opisthotonos, contraction of pharynx and æsophagus.

These occurrences would often take place several times during the month; still, menstruation would continue regular, not more difficult nor copious than habitually.

At the time I was called to visit Mrs. P., she had consulted quite a number of physicians and had been treated in various ways. Anti-spasmodics, tonics, blisters, hypodermics of morphine, sea baths, mineral waters, electricity, hydropathy and homœopathy had all been tried in vain. Absolute continence for months had been recommended and faithfully observed, without any change in her condition. Under the influence of these different modes of treatment, there would at times be observed an apparent amelioration of the gastric and nervous symptoms, after which, for weeks and weeks, the patient would suffer as before, and present the varied strange phenomena above described, which were at times, but not invariably, increased during the menstrual period. The attention of her different medical advisers had, apparently, not been called

to the organs of generation; there was, in fact, no leucorrhœa, no hemorrhage, no great suffering, even during menstruation, which continued sufficiently regular.

Guided by the experience of the past, and taking into consideration the failure of the varied medication followed up to that time, I was easily led to believe that the cause, whatever it could be, of all her sufferings, existed in the uterus and annexed organs. I was still more inclined towards that opinion from the fact of the existing dysmenorrhœa and sterility—particularly remarkable in this case, as all of the patient's sisters and nieces had large families of children, one of the nieces having had *twins*, and a sister *triplets*. At the age of twenty, the latter had had five children. I attended them all in their numerous confinements.

Insisting, in consequence, upon the necessity of a thorough uterine examination, I found an abnormal sensibility of the external organs, amounting almost to vaginismus; a narrow, constricted, vaginal canal; a conical cervix, hard, resistant to the touch, almost fibrous, of a deep red color and smooth surface; external os so small as to be almost invisible, and not allowing the smallest sound to penetrate. Uterus of normal size and in position. Believing this special condition of induration and configuration of the cervix, and the extreme narrowness of its canal, to be the probable cause of all the above described symptoms of gastric and nervous disorder; considering that the existing dysmenorrhœa and sterility required and justified for themselves surgical interference, I proposed to incise and dilate the cervix. The operation was readily accepted. I then performed the operation of lateral incision of the cervical canal throughout its whole length, particularly at its two orifices, following strictly the suggestions of Dr. Marion Sims in regard to the operation and its after treatment, Drs. Trudeau and Castellanos assisting me in the operation.

The immediate results of the operation were most satisfactory. Before the incisions healed, the vomiting had ceased; the appearance of the parts had become more

natural; the form and shape of the cervix was entirely modified: the induration and fibrous appearance of the neck, the state of congestion, and the hyperæsthesia of the genital organs disappeared, and the cervical canal admitted easily the introduction of a large sound into the uterine cavity, which was found of normal depth and direction. As the vomiting subsided, nutrition improved, strength returned, and the nervous system became quieted. *Sanguis moderator nervorum.* The patient became fleshy, gay, and cheerful, and such a change from her condition previous to the operation was a cause of great surprise and delight to herself, relatives and friends, not less than to myself and my confrères, who saw her at the time and followed the case with me. For nine or ten months following the operation the condition of Mrs. P. was most satisfactory. She was in the best of health. Menstruation was regular, painless. Unfortunately, she did not become enceinte. About that time, functional derangements of the stomach and of the nervous system began to show themselves.

The uterus was examined and the os and cervical canal found to have become considerably narrower than they were two months after the operation. The os was carefully incised for the second time: sponges and dilators were used once or twice a month for some months after the operation.

The same immediate and remarkable amelioration in the patient's condition followed and continued for over a year. Then the return, to a less degree, of the same disorders in functions of the digestive and nervous system compelled me, for the third time, to have recourse to the same mode of treatment. This time success was complete and final. There was no return of the distressing symptoms; the cervix and os uteri resumed their normal condition, and the patient continued to enjoy perfect health until her death, which was caused by pneumonia only two years ago, five years after the third and last operation.

I will now come to my second case.

Prof. L. A. Sayre, a few years ago, published, as you

are aware, several cases of partial paralysis from reflex irritation, caused by congenital phimosis and adherent prepuce. I think due credit should have been given to Prof. Sayre, for being one of the first, if not *the first*, to call the attention of the profession to the relation existing between this particular condition of the penis and certain cases of paralysis and other nervous phenomena, until then unexplained.

The following case, which I have lately observed, is almost identical with one of Prof. Sayre's. In November last, I was consulted for the child of Mrs. L., of this city. The little patient, four years old, pale and delicate, had great difficulty in walking or standing long on his feet: he fell quite frequently on the floor; the muscles of his legs, the gastrocnemii particularly, were soft, flabby, and very little developed; in walking, the legs were thrown forward with a visible effort, and the feet fell to the ground as if lifeless. General condition not good, very little appetite, a suffering expression of physiognomy; restlessness at night; capricious disposition, inclined to be sad, by himself; at times peevish and fretful. Such were the general symptoms and appearance of the child, when I first saw him.

In examining more closely I found that he had a long, pointed penis, of the form of a large silk worm; that the foreskin was long and tightly contracted on the glans, which, through an exceedingly small orifice, could be seen swollen, red and greatly irritated. The organ was noticed to be in a frequent state of erection, and the child would often complain, especially at night, of his penis hurting him. From all these symptoms, there could be no doubt in my mind as to the nature and cause of my little patient's sufferings. It was plainly a case of partial paralysis, or paresis of the lower extremities, and of general neurosis caused by congenital phimosis and adherent prepuce. I immediately proposed the operation of *circumcision*. A few days after, chloroform being administered by Dr. Sauvé, the operation was performed with care. I found things ex-

actly as I expected: there was considerable adhesion between the glans and prepuce, and some indurated sebaceous secretion behind the corona. The operation was followed by the best results: one week after, the wound had entirely healed. The nervousness, frequent erections, loss of sleep and appetite soon disappeared, and three months after, there was no sign of paralysis of the lower extremities; the child was able to stand on his feet and walk all day without falling: the step was firm, steady; the muscles were greatly developed and the general condition, in every manner, quite satisfactory.

In fine, gentlemen, I will summarize by stating that I have given you two additional illustrations (I could furnish several other cases) of reflex irritative action on the digestive and nervous systems from a peculiar condition of the genital organs—in the first case, we have an example of general hystero-neurosis and intractable vomiting, caused by occlusion and induration of the cervix uteri, cured by incision and dilatation; in the second, a case of partial paralysis and neurosis, caused by congenital phimosis and adherent prepuce, radically cured by the operation of circumcision.

TRANSLATIONS.

EARLY DIAGNOSIS OF THE DIFFERENT FORMS OF PULMONARY PHTHISIS.

By Dr. Grancher, of Paris.

(Translated from *La Cronica Medico-Quirurgica, of Havana*, by A. McShane, M. D.)

[concluded.]

This yields perfectly under a vigorous treatment, above all during the period which I shall call *intermediate*, in which the appearance of health is completed.

But, in order that you may derive some benefit from these considerations, it is necessary that you be forewarned,

and to this end I strongly recommend you to auscultate the apices in all anomalous pneumonias, and to distrust much that will occur in individuals who are robust, but who have already become exhausted.

Let us now pass to the other clinical form liable, like the preceding, to lead into error.

A robust man is attacked with a chill not very violent, with a diffused pain in the side, with cough (in some cases little or none), and with moderate fever. You auscultate and detect during the early days, with various râles, a friction sound, and somewhat later, the signs of an effusion. Some days pass, this disappears, the friction sound returns, and everything moves in the most perfect order for some months, at the end of which time appear certain signs of tuberculosis at the vertex.

In this case, as in the one already described, tuberculosis already exists during the period which seemed to belong to a disease purely inflammatory. If you had percussed the vertex of the chest of your patient, you would doubtless have found a notable increase of percussion resonance, skodism; if you had auscultated, you would have observed a diminution, a feebleness, or perhaps almost suppression of the vesicular murmur; and on palpation you would have noticed an exaggeration of the vocal fremitus. The combination of these physical signs my be expressed by the following scheme:

Percussion resonance, - - - - +
Fremitus, - - - - - - - +
Respiratory murmur, - - - - —

These signs I might lay down as characteristic of the pulmonary congestion which frequently accompanies the pleurisies of the tuberculous, because they differ in one point, as important as it is significant, from those signs which are found in simple pleurisies: I refer to the respiration, which in these is notably increased, the very opposite of what happens in the tuberculous forms, as we have just seen. When, in the course of a pleurisy of medium intensity, the examination of the apex of the lung, on the affected sides, gives the following scheme:

Resonance, - - - - - - - +
Fremitus, - - - - - - - +
Respiratory murmur, - - - - +

then you may infer that the integrity of the pulmonary parenchyma exists. This differential diagnosis has been

the subject of a memoir which I presented to the Société Medicale des Hopitaux, and I can assure you, that since I have aroused the attention of my colleagues to this point, the facts which confirm my investigations have multiplied.

I must, however, put you on your guard against a possible error. Bear in mind that there is not one or other of the signs that will alone suffice to reveal tuberculosis: the union of the three is that which acquires considerable value; the accompanying symptoms, in a word, should be considered before everything; and on this account the result of my investigations has been in nowise invalidated by the observations set forth in the thesis of M. Serrant, a pupil of Professor Potain, whose ability and skill upon matters of diagnosis are universally recognized. According to the history of the patients in that thesis, the pulmonary congestion of pleurisy had not been studied at the vertex, except after the effusion; and the alterations in resonance of fremitus and respiration have not been investigated in a regular manner in the regions of the lung which float above the effusion, and on this account are accessible to the touch and hearing.

The signs of which we have spoken persist during the intermediate period, that in which all the appearances of health are found, although with a certain modification, which I shall describe to you, telling you that once the effusion has disappeared, the skodism has been replaced by dullness.

This *tuberculous pleuro-pneumonia* is, then, as complete and independent a disease as the *spleno-pneumonia* which I have already taught you to recognize, though of the same pathological character: like this, it is susceptible of cure, if we act with vigor during the intermediate period; for three stages may be distinguished in the march of the disease: in the first, the pleurisy predominates and characterizes the disease; in the second, the pleurisy is cured, and the patient, who appears already to have returned to health, has once more resumed his work; and in the third, finally, tuberculosis develops in the lung of the affected side.

So the diagnosis is established only at the end of some months and then too late, because during the course of the pleurisy the concomitant pulmonary lesion had been overlooked.

It yet remains for me to speak of the signs which allow us to diagnose ordinary phthisis in its incipiency.

You all know that ordinary phthisis has been divided

into three classical periods, and you are also aware that the first has been characterized since Laennec by bronchophony, expiration prolonged or in the form of a souffle, and broncho-vesicular respiration.

The physicians of our times have added to the diagnosis dullness on percussion and the crepitant râles heard on auscultation. When such a symptomatology is found in a person who coughs and who offers at the same time certain changes in his general condition, it is usually said that incipient tuberculosis exists. Well, then, in all similar cases, I can say to you that that is "the beginning of the end" of tuberculosis. When the signs which we have just mentioned appear, tuberculosis is already in the second stage of its evolution; the granulations have fused, and form a conglomerate mass.

No doubt you remember what I have said to you: that before that stage there was another in which the granulations appear isolated, scattered, discretely disseminated. It is at this time that they do not react upon the general condition, nor give rise to great changes in the pulmonary sounds, which it is necessary to be able to detect; and this idea did not escape the older physicians, for before the discovery of auscultation Bayle already concerned himself with what he called *latent phthisis* (pretubercular stage), that is to say, the period which in that disease precedes that in which the patients fall into consumption. Laennec makes allusion to this notion of Bayle; but, even when he devotes a special paragraph to it, he declares that auscultation has revealed to him no sign that would point to the diagnosis in this stage; he studies then at once, the signs of phthisis in the stage of conglomeration (softening?), or in his own words, of accumulation, the stage which the successors of Laennec have designated, with less propriety, by the name of "first period," or "first stage."

I believe that in many cases we can do somewhat better; for we can discover the tubercles when they are disseminated in the form of granulations; and I believe that we should do it, because it is then that we can control it.

But, as I told you a moment ago, do not believe that the presence of tubercle during its germination reveals itself by signs which percussion allows you to discover, nor by râles or profound changes of respiration which auscultation enables you to detect. No: the minutest changes, but perceptible in the respiratory function, are all that can lead to the diagnosis.

And observe how necessary it is to know thoroughly the sensation imparted to the ear by the normal respiratory murmur; because it is only thus that you may perceive the slight changes produced by tubercle in its stage of germination.

But among physicians, how many are there who know, as they ought, the characters of normal respiration? For my part, I can say to you—and the confession is as humiliating as sincere—that I had already obtained my scientific degrees and commenced to apply myself with ardor to my investigations in phthisis, when I discovered that I knew nothing at all about normal respiration. Inveterate student habits and a vicious method of examining patients, explain but too well this void in our professional acquirements; when we study medicine, not one of us examines normal respiration; once physicians, we do not auscultate a patient unless attention has been drawn to the chest; and if we do so in other cases, it is really very lightly and as if to discharge a duty of conscience. All this is so true that I have had—and I think I can say so without any indiscretion—a distinguished hospital physician, whom I highly esteem, assure me that he heard true physiological respiration in a patient in whom I had already noted a very sensible alteration of the normal respiratory sound; and it was necessary to find in the other wards a patient who presented a perfectly normal respiration, before my colleague would yield to the evidence.

Returning to our subject, I must tell you that normal respiration is not an easy thing to learn: in the first place, you will find few individuals over thirty years of age who have not suffered from bronchitis, or who have not been attacked with pneumonia or pleurisy; and it is necessary to bear in mind that all serious diseases of the bronchi or the lungs leave behind them permanent modifications in the respiratory murmur; and this not only in the places in which they have their seat, but also at some distance: at times it is compensatory exaggeration that you will find, at others feebleness from obstruction.

Besides, as a fresh source of difficulties, you will find changes in the respiratory sound that arise from the bad way of breathing that people have when under examination: there is no function in which irregularity is more manifest, since attention to it makes it lose its unconscious character; often will you meet persons who force their respiration—even to the point of making it boisterous by

violent or disorderly inspiration: others, on the contrary, do move the chest or else perform respirations so feeble that you obtain an entirely false idea of the sound of normal respiration; and it is necessary, for that reason, to accustom your patients to breathe naturally; but once accustomed to it, this apprenticeship, though very irksome, does not offer very great difficulties, and I can assure you that at the end of one or two months' practice, my pupils will have so deeply impressed on their minds the sensation imparted by normal respiration, that they will perceive, as readily as myself, its slightest deviations.

It is necessary, however, in order to attain this result easily and surely, to accustom yourself to know well, separately, each one of the movements of respiration; by means of a very simple mental process, and with the aid of the will, you may be able to abstract your mind during *one* of the respiratory movements, and *not listen* to the other unless the sensation produced by the first is perfectly perceived and retained by the ear. You should not be satisfied with auscultation on one side only, but should also practice it on the other.

If you follow these rules, you will succeed in distinguishing the character of normal respirations; and you will see that inspiration is changed much less than expiration, which is soft and smooth, neither stronger nor weaker, equal on both sides and of one pitch, which corresponds to that of *re* on the string of the violin.

But, from the moment in which tubercle germinates in the apex of one or both lungs, the characters of the sound change; you will find the respiration rough and low, only that, to give these sounds the value which I have the right to assign to them, it is necessary that they be *localized* and *fixed;* it is necessary to find them at the apex, and by preference under the left clavicle; and not disturbed by cough or any other cause: and that you perceive them with significant fixedness each time that you auscultate your patient.

I might cite to you many cases which would be sufficient proof to ground in you this conviction; but I will confine myself to narrating what was related to me by my friend, Dr. Rigal.

We were at the close of a vacation, and I was preparing to resume my service in the Hospital Necker, when M. Rigal, approaching me in great satisfaction, told me that he had had occasion to test the value of roughened inspiration as

an early diagnostic sign of tuberculosis. He then told me that, four or five months before, he had gone to see a young man who was about to get married, and who had a slight cough: he examined him carefully, and discovered under one of the clavicles roughened inspiration; and although his health otherwise left nothing to be desired, he advised him to go under treatment, beseeching him to postpone his marriage. Naturally dissatisfied with this advice, the patient consulted another hospital physician, who does not attribute any great importance to the sign, and paying no attention to it, he permitted the patient to marry. To-day, M. Rigal told me, this young man is tuberculous, and has been obliged to seek relief from his sufferings in the milder climate of Nice.

Thus you see that, by simple changes in respiration, you will be able to predict the development of tuberculosis. I urge you not to omit an examination in all cases in which that disease may develop. Always auscultate the apices of chlorotic, anæmic and dyspeptic patients whom you hear cough, and in general of all those in whom organic decay might lead you to think of its common termination, and you will not then hesitate to act promptly and vigorously. You have at your disposal, to act upon those deteriorated organisms, which foster the development of tubercle, nature's great remedies, hygiene, aerotherapy, hydrotherapy, etc. Employ, if you deem it proper and useful, the pharmaco-dynamite agents: but only as an accessory treatment, and guarding against disturbance of the gastric functions. I am perfectly convinced that you will more than once have occasion to congratulate yourselves, feeling the satisfaction of having snatched one victim from the embrace of death.

A NEW METHOD OF PRESERVING MEAT AND CADAVERS.

[*From an article published in La Natura, by Arnoldo Usigle.*]

(Translated by Dr. John Dell'Orto.)

The Italian Society of Hygiene has recently been studying the new method of preserving cadavers and alimentary substances, invented by Pietro Toninetti.

Although Mr. Toninetti does not give the names of the chemical materials used by him in his preparations, the results are nevertheless really splendid and encouraging.

A special committee composed of Doctor Zucchi,

director of the hospital of Milan; Doctor Zoccoli, professor of anatomy; Doctor Pelloggio, professor of chemistry, and Doctors Sapolini and Visconti has been appointed by the above-named association, for the purpose of investigating the matter.

Experiments were made with three human corpses, one hyena, one duck, one turkey a few fishes, and several eggs, and the verdict of the committee was completely in favor of this new method.

The duck was prepared on the 23d of November, 1881. Two months afterwards, on the 22d of January, 1882, the committee found it in a state of natural freshness, as if the animal had just been killed. Its feathers were solidly attached; the skin had its natural color and smoothness, as also was the flesh and the internal organs.

The animal was then cooked, and the meat was found to have an excellent flavor.

The turkey was examined forty-five days after death: one-half of it was roasted and the other boiled. Both meat and broth were very good, and exceedingly palatable.

Two kinds of fishes were prepared; one eel and five tenches. Three months after, the tenches commenced to decompose, while the eel did not manifest any sign of putrefaction. Eggs were found well preserved four months after the experiment.

The hyena was killed on November 26th, 1881. When I saw it several months after having been prepared according to the method of Toninetti, I was really surprised to find it in such an excellent condition; its hair looking soft and bright, and its joints preserving their natural mobility.

The results obtained in the three corpses were also wonderful.

The first experiment was made in a child seventeen days old—forty-eight hours after death. The body of this child presented a few blue spots. At the end of one month the spots had disappeared, and the color of the skin looked rather rosy. Fifty-two days after death it was found in a state of perfect preservation.

The second corpse was that of a young man of seventeen Twenty-two days after the preparation he was well preserved; the color of the skin in this case became bronzed.

The third experiment was made on the corpse of a boy, seven years old. This case was sent to Toninetti already in a state of advanced putrefaction; many violet spots were

noticed on the body. Fifteen days after the preparation there was no sign of putrefaction and the body was perfectly preserved.

All these corpses, as well as the alimentary substances, were continually exposed to the air. The operation does not last longer than a quarter of an hour.

I saw all these preparations at Toninetti's laboratory, who had the kindness to show me, besides, a human head which he had kept preserved for years in a private box. It is a magnificent head, and I must confess that its long beard, its thick fine hair, its quite lively, almost natural look, greatly astonished me. Though separated several years from its body, I found it so well preserved, that its sight did not inspire any repugnance.

That head belonged to a Russian functionary! Under it a horrible, mysterious drama is concealed—a drama which probably originated from the love of his country and liberty, and ended fatally in the gloomy and sad walls of a dungeon! * * *

In view of the great importance of this discovery, we hear that an association is on the point of being organized in Milan, under the direction of Dr. Zoccoli, professor of anatomy and director of the anatomical laboratory of the veterinary school of that city.

The object of this association will be to make a complete anatomical, pathological and zoological collection, prepared according to the method above mentioned, and sell them to such scientific institutions as may have use for them.

[In presence of these facts, we earnestly wish to the association the most complete success, and hope that before long, either Toninetti or the distinguished gentleman who is at the head of it, will let the medical profession know the composition of those preparations, both in the interest of science and humanity.—The Translator.]

SEMMOLA'S THEORY OF ALBUMINURIA.

This distinguished Italian teacher believes, that in Bright's disease, albumen is found not only in the urine but in all the secretions, such as the saliva, sweat and even bile. This disease does not owe its origin to an organic renal lesion, but to a general disturbance of nutrition, which

causes a mal-assimilation of albuminoidal substances, and an elimination of the same through the emunctories.

In order to explain the renal disease constantly attendant upon this state, M. Semmola considers it as an effect and not as a cause. The kidney lesion would then be due to the continued excretion of a urine altered by the presence of albumen. He demonstrates the latter proposition by artificial albuminuria in the lower animals by injecting subcutaneously albuminous solutions. The urine in such cases becomes charged with albumen, and in a short time presents the casts and other characteristics of Bright's disease.—*Journal de Medecine de Chirurgie.*

A CUTANEOUS PARASITE.

M. Hardy removed, by simple expression of a furuncular tumor of the skin, in a recently arrived Brazilian woman, a number of living larvæ, which, after examination by M. Laboulène, were pronounced by him specimens of the *dermatobia noxialis*, known also as the *ver macaque* and *ver mayaquil*, etc. It is a curious case, and one especially interesting on account of the survival of these parasites, even after a transatlantic journey. Their propagation, however, is not to be feared, for, outside of their native habitat, Brazil, they do not find the conditions necessary to their successful development.—*Journal de Medecine et de Chirurgie Pratiques.*

TREATMENT OF WARTS BY THE INTERNAL ADMINISTRATION OF MAGNESIA.

In his lessons on infantile hygiene, M. Fonssagrives recommends, against these troublesome tumors, a mode of treatment which, though applied on purely empirical grounds, is yet very curative in its effects. The medication referred to is the internal exhibition of the magnesium salts in small but long continued doses. Nothing is more certain and more inexplicable than the action of these salts. Taubert (of Hagueman), who first recorded this effect, says that his attention was first directed to the value of these preparations when treating a gastralgic patient with magnesia (carbonate?). This individual was afflicted with *verrucæ confluentes* covering both hands.

Some time after taking the magnesium preparation the warts disappeared. M. Fonssagrives quotes a number of French and foreign authors who have noticed the same effect. M. Fonssagrives himself had lately treated a remarkable case, in which multiple warts covered both hands. Many procedures had been instituted to relieve the condition, but fruitlessly. Fonssagrives recommended a pinch of magnesia (calcined?) daily. Two and a half months after, the warts dried up, exfoliated and disappeared.—*Journal de Medecine et Chirurgie Pratiques.*

Dr. P. F. Guiard has recently published, in the *Annales des Maladies des Organes Genito Urinaires*, an interesting study upon the spontaneous development of gases in the bladder. He remarks that the escape of gas through the urethra may be due to various circumstances: thus, the existence of a recto-vesical or urethro-rectal fistulaæ explains this phenomenon in some cases; but what especially interests him is the formation of gases within the bladder itself from urinary decomposition. He bases most of his observations upon cases which were observed by Dr. Adrien Simon (of Semur), and others studied by himself in Prof. Guyon's ward in Paris. When evolved, these gases do not give rise to great vesical unpleasantness; nothing like meteorism of the intestines; no vesical tenesmus. The gases do not escape until all the urine has been voided. Sometimes their emission is accompanied by a detonation not unlike that which accompanies intestinal discharges. Urethral winds, however, emit no odor. The urine is clear, sometimes fœtid, but always acid. So far, Dr. G. has not been able to collect these gases for analytical purposes. It is worthy of notice, that all the patients were catheterized previous to the occurrence of the phenomenon, explaining thereby the admission of air and ferments into the bladder. From all his observations, Dr. Guiard concludes that almost all cases of vesical gas formation are associated with diabetes; hence he designates this condition *pneumaturia diabetica*. The condition, *per se*, is not dangerous. Is a valuable item in diagnosis, but does not affect prognosis. The evolution of gas is easily arrested by the injection of boracic acid solution, or any other antiseptic liquid.

R. Matas, M. D.

Reports of Cases.

Dislocation of the Metatarsal Bone of the Great Toe upwards upon the Dorsum of the Foot.

By W. K. Sutherlin, M. D., Mansfield, La.

I was called about nine o'clock, on August 18th, 1883, by Mr. J. P. Mc——, who lives about a mile from the little village of Mansfield—to see his son Charley, who is about eighteen years of age, and in splendid health.

When I arrived at his house, I found Charley suffering very much from his foot: he complained of it being *very* painful.

Upon examination, I found his foot considerably swollen and very painful, with a hard swelling upon the dorsum of the foot near its inner edge, which being traced downwards by my fingers proved to be the end of the metatarsal bone. The great toe was flexed upon its metatarsal bone; and a considerable vacuity could be felt on the sole of the foot, from the matatarso-phalangeal articulation to the tarso-metatarsal joint. The internal cuneiform bone was prominent at the posterior part of the vacuity in the sole of the foot. About four or five hours elapsed after the reception of the injury before I saw him. Upon inquiry, I found the accident was produced in this manner, viz: While setting upon the top of a common rail fence, about four or five feet high, the top rail broke, and in order to save himself from falling, he leaped off from the fence and alighted upon the ball of the great toe with the foot somewhat abducted, and forcibly extended upon the leg, and the leg flexed upon the thigh. So it will be seen the force that drove the metatarso-phalangeal articulation backwards at the same time drove the tarsal end of metatarsal bone upwards upon the dorsum of the foot. With the aid of an anæsthetic (chloroform) (not that it was necessary, but the patient desired it), and extension with a clove-hitch

around the great toe, and direct pressure upon the displaced end of the bone, it was readily reduced.

At the end of three weeks he was able to perform any of the ordinary duties of a farm hand. He has since entirely recovered.

On account of the strong ligamentous attachments and irregular connection of the metatarsal bones, one to another, and to the tarsus, simple dislocation of any one of these joints, by indirect violence, is one of the rarest of accidents—and it is on this account that I report this case.

Current Medical Literature.

Surgical Expedients in Emergencies.—It is in the experience of every surgeon to be occasionally obliged, in the absence of ordinary means and appliances, to devise resources available at the moment. Such occasions bring the practical character of the physician to the test, and on his readiness for the emergency may depend the relief of suffering or the averting of a fatal termination. His reputation, too, may, at such times, stand in the balance of good or ill report, to be turned happily in his favor or gravely against him.

The exigencies of active surgical practice have frequently obliged me to rely on hastily devised resources, and I trust that the record of some of them which I recall may possibly be of benefit to the profession and a relief to human suffering.

The necessity for *evacuating an over-distended bladder* is liable to become immediately urgent on occasions where a catheter is not quickly attainable. It is remarkable how often the condition is overlooked by practitioners, until it becomes one of suffering and danger, demanding instant relief. The continued dribbling that often occurs from an almost bursting bladder may mislead or blind one to the grave danger. The absence of a catheter on one such pressing occasion led me to contrive a ready means of

evacuating the urine. The recourse was an iron bell wire, bent double on itself, and the blunt doubled end passed readily through the urethral tract to the bladder. The distention of the urethra by the double wire allowed the urine to freely pass between the wires.

A female catheter may be extemporized from a short piece of rye straw, the end of which is to be closely wrapped for a short distance with thread; or the end of the straw may have its sharpness removed by dipping into melted sealing wax. The stem of the ordinary clay tobacco pipe is also efficient for the purpose. Such crude substitutes, when oiled, are readily introduced.

The operation of venesection would probably be more frequently resorted to when needed, if a proper lancet, in perfect order, were at hand; but the critical time for relief of an actively congested or inflamed lung or brain is sometimes allowed to pass, for want of a ready and certain method of opening a vein. I once, on a pressing occasion, bled a patient at the bend of the elbow, with perfect ease and precision, with but a blunt-pointed and dull pocket knife, by resorting to a simple, convenient expedient. Having put on the usual constricting bandage to distend the veins, I first transfixed the most prominent vein with a fine needle. Thus held securely, it was very easy, even with the dull knife, to cut a valvular incision into the vein, and the blood flowed freely.

For the arrest of nasal hemorrhage, I know of no device so good as one that may be readily extemporized with a strong piece of cord and some small pieces of sponge. The cord is tied securely to a piece of sponge, cut rounded, and just large enough to be forced backwards through the nostril. Then a number of similar pieces of sponge, with a hole through the center of each, are threaded successively on the cord. The sponge on the end of the cord is then pushed, with a probe or dressing forceps, through the nostril, quite back to the faucial orifice; and the rest of the threaded pieces of sponge are slid back, one at a time, until the nares are tightly filled. When the patient becomes secure against a repetition of hemorrhage, the plugging is readily removed, one piece of sponge being withdrawn at a time, with the dressing forceps. The posterior nares may also be easily plugged by introducing either a slender gum bougie or a piece of thick catgut string, with a cord attached, through the nares, catching one end of it in the fauces with forceps, and drawing it forward through the

mouth. To the cord which follows a piece of sponge or pledget of lint is tied, to be drawn up into the posterior nares.

A method of making unirritating and painless pressure within the nares, in cases of obstinate epistaxis, is by a piece of the intestine of a chicken or other small animal, about twelve inches long, partially filled with either air or water. One end of the intestine is, while empty and collapsed, pushed backward through the nares; when thus lodged, the air or water in the other end is forced, by compression with the hand, from the pendulous portion into the part lodged in the nares. Strong, equable compression can thus be made, rendering hemorrhage impossible.

In a case of *hemorrhage from the intercostal artery*, from homicidal stabbing, I arrested the flow immediately by making pressure within the pleural cavity, directly on the vessel, by introducing into the wound the handle of a door key. The key was then turned transversely, so as to make direct pressure, and maintained in that position for some hours, until there was no more tendency to hemorrhage. The same mechanical action might be effected by the similar use of the handle of an ordinary gimlet.

As a very efficient substitute for Esmarch's elastic bandage, I suggested some years ago, in an article in the *Philadelphia Medical Times*, the use of a bandage made from ordinary flannel, cut bias, so as to increase its elasticity. Such an elastic bandage, from a material almost everywhere at hand, is, I know from experience, perfectly effective.

The hæmostatic action of hot water does not seem to be sufficiently known and appreciated among practitioners. It is so effective, and can be so readily applied, that it may well displace from practice all other hæmostatics. Water at a temperature not beyond tolerance of the immersion of the hand in it, which is a temperature of from one hundred and fifteen to one hundred and twenty degrees, is ordinarily all that is necessary; but in some cases not amenable to treatment by the ligature, a temperature above 160° F., the coagulating point of albumen, may be necessary.

The absence of a tenaculum may be well replaced by a small fish-hook secured to a pen-holder.

For dislodging a foreign body in the œsophagus by forcing it downward, an ordinary carriage or riding whip, knotted far enough from the end to insure the proper de-

gree of flexibility, may be an efficient expedient in an emergency.

Materials for splints for the temporary dressing of fractures can be at almost all times extemporized from the materials of wooden boxes and binders' boards. To dress fracture of the fore-arm and of the leg, in a case required to be removed to a distance from the scene of the accident, I once improvised an efficient dressing by breaking into strips some ordinary palm-leaf fans, which were at hand, and bound them on the limbs. I commend the material for its merits of being elastic and conformable to the shape of the limb. Good temporary dressings can also be made from common straw, cut to proper length and bound in layers on the limb.

For a readily made fixed dressing, a plan I have resorted to is with ordinary sand-paper as the material. The sand-paper is dipped into warm water, to soften the paper and glue, and it is then applied and retained with a bandage. The glue of the sand-paper soon gives rigidity: body and firmness are produced by the sand and paper. Strong fixed dressings, it should be remembered, can be readily prepared with the familiar domestic commodities of starch, or with the combination of eggs and flour.

In removing a patient with a fractured thigh or leg, the uninjured limb can be made to temporarily act as a splint and take care of the injured one, by simply bandaging the limbs together. It should be borne in mind that many fractures of the long bones can be well treated without any kind of splints. Fractures of the femur are not now generally treated with splints. After coaptation is effected, simple extension, by means of weights, is the only essential. Fractures of the clavicle are, I am convinced, from practical experience and much attention to the subject, the most effectively treated by keeping the patient in the supine position of the body, with the head alone slightly elevated, to relax the sterno-mastoid muscle, one of the factors of displacement of the fragments. If this position, on a level mattress, is maintained for only a week or ten days, the tendency to displacement is so overcome that a mere sling for the support of the arm and shoulder, or other simple dressing, is all that is necessary.

The simple postural method of treatment, without splints, is applicable to most fractures in the vicinity of joints. In fractures of the upper end of the humerus, splints are usually of no real practical advantage, and the injury can

be well treated by position of the arm, and by support against the thorax, maintained by adhesive strips or bandages, occasionally aided by an axillary pad.

The usual fracture of the lower end of the radius, transverse in direction and produced by a fall on the extended palm of the hand, if properly reduced by longitudinal traction and forced flexion of the wrist and hand, has rarely a tendency to displacement if the wrist and hand are maintained in a state of moderate flexion, without the use of any splint.

The ordinary splint applied on the outside of a fractured jaw, is mechanically inefficient for the object, and has no advantage over an ordinary bandage or handkerchief, applied to keep the part at rest.

Many surgical instruments are made after traditionally complicated forms. Scalpels, bistouries and needles should not be crooked. I know of no use for curved knives, and the occasions for the use of curved needles may be limited to a few plastic procedures in cavities. The ordinary surgical needle, with its absurd and inconvenient curve, I long ago discarded in favor of the more efficient, simple and cheap glovers' needles. A good surgical needle can be readily made from an ordinary sewing needle, broken off above its point and ground to such an oblique point as is given to the hollow needle of the hypordemic syringe.

A common gimlet is an *efficient instrument for opening the mastoid cells*, in cases of abscess, where there is grave threatening of cerebral complication, demanding prompt action.

The patient use of a carpenter's rasp may safely substitute the trepine, in cases of fractured skull, by cutting away an angle or edge of bone at the point of fracture, and allowing an elevator, such as a small screw driver, to be inserted beneath a depressed fragment.

In regard to the traditional forms given to instruments, I have inquired of different instrument makers why the sharp, triangular point is made on the ordinary silver probe, but it remains unexplained. I have never seen any surgeon use this curious bayonet-point of a probe, and know of no possibly use for it.

The facility with which rectal injection can be performed with large quantities of fluids, by hydrostatic pressure, renders not essential the use of a syringe, if a piece of india-rubber tubing long enough can be obtained. The

lower bowels may also be distended, in cases of intussusception, by injecting water and carbonic acid gas, forced from the ordinary mineral water bottle or syphon, fitted to the rectal tube.

In cases of violent inflammation and traumatic injuries to the eye, needing immediate use of a mydriatic, the universally present stramonium may well substitute belladonna or atropia.

For antiseptic use many readily procured substances may well replace carbolic acid. None is so cheap and efficient as that most neglected preventor of putrefaction, sulphurous acid, made simply by exposing water to the fumes of burning sulphur in a close chamber. The antiseptic action of a saturated watery solution of turpentine has also the advantage of convenience of procurement and cheapness. For this purpose turpentine should be kept continually in water and exposed to warmth, and frequently agitated. Diluted alcohol has merits as an antiseptic which have not received proper attention.

Recent investigations have proved that the bichloride of mercury is the most powerful of all germicides, and that it can be used effectively in unirritating dilutions of one part to two thousand or more of water. These readily obtainable substances prevent the decompostion of animal matters, and, without disputing over the germinal, chemical or other theories of their action, all surgeons must admit that putrefaction is the most common factor in preventing the healing of wounds, and that it should be avoided.—*R. J. Levis, M. D., The Polyclinic.*

The Antiseptic Action of Drugs Within the Body. The parasitic theory of disease is one that appeals most temptingly to the imagination of the therapeutist. Once the particular parasite is found upon whose presence in the organism the manifestations of any given disease depend, experiments will speedily determine what drugs are poisonous to it. Then, these two factors being given, what can be more easy than the solution of the problem of cure? It is only necessary to give the remedy in quantities sufficient to kill the parasite, and our patient is cured—provided, of course, that the microbe has not had time to produce irremediable organic lesions. When the disease is a local one and admits of the direct application of the

antiseptic agent, this dream may be realized. Indeed, empiricism has often, in such cases, anticipated the deductions of science, and we find the explanation of the action of long used remedies in the power they possess of destroying certain low forms of organic life. But in the treatment of systemic or internal diseases of parasitic origin a more complex problem presents itself. If the tuberculous patient carried his bacilli about in a bottle or a test-tube instead of in his lungs or other organs, their destruction would be a very simple matter. But when it comes to killing the micro-organisms which are scattered about in various inaccessible organs and tissues of the body, the dose of the required remedy must be so great that we run the risk of killing the patient as well as his parasites. Koch has determined by experiment that corrosive sublimate is fatal to the anthrax bacteria when added to the culture fluid in the proportion of 1 part to 200,000. If given in the same proportion to the mass of blood in a man weighing one hundred and thirty pounds, it would require at least two-fifths of a grain in a single dose. Binz endeavors to show that a proportionate dose may be given by intravenous injection to animals without fatal results. He therefore takes issue with those who have denied the possibility of destroying micro-organisms within the body, without, at the same time, endangering the life of the patient. The value of Binz's experiments is, however, questioned by Buchner (*Centralblatt für Klinische Medicin*, July 14, 1883). The latter claims that corrosive sublimate in the proportion of 1 part to 200,000 of the animal fluids is fatal to the organism, and he refuses to accept the conclusions of Binz in disproof of his assertion. Corrosive sublimate, he says, enters into chemical combination with the albumen of the blood, forming an albuminate of mercury. This substance, although remaining in solution, is less readily diffusible and less capable of endosmosis, and hence there is no certainty that it becomes equally distributed in all the tissues. Further, the bichloride, by its transformation into albuminate of mercury, is robbed of a great part of its poisonous action. This is indicated by the less irritant action, and therefore the less immediately injurious effect upon the cells, of the latter salt when injected hypodermically. Buchner has found that double the quantity of albuminate of mercury is required to produce the same effects upon bacteria as are caused by a given amount of the bichloride. He does not deny that certain

diseases are cured by the internal administration of antiseptic remedies, such as quinine, bichloride of mercury, salicylic acid, etc. But he asserts that they act, not as antiseptics, but in some other way, possibly by increasing the power of resistance of the organism to the action of the specific parasite. He says that were quinine to act as an antiseptic within the tissues, it would require in the average individual a dose of at least three ounces. Arsenic, again, possesses feeble antiseptic properties, yet its action in small doses in malaria is undoubted. It cannot be due to its poisonous action upon the malarial bacteria, and must, therefore, be owing to some specific effect whereby the tissues are enabled to resist and throw off the poison. The author concedes that there may be some relation between the property possessed by a drug of destroying micro-organisms outside of the body, and its known value as a remedy in disease, but he denies that the action in the two cases is the same. He thinks that newly discovered antiseptics should always be given tentatively in parasitic diseases, and believes that thereby many valuable specifics may be added to our list. But the attempt to secure an antiseptic action of any drug within the body is not only useless, but fraught with danger to the life of the patient.—*New York Medical Record*, Sept. 15.

Gonorrhœa Easily Cured.—Founding an opinion on the recent text-books and treatises on this disease, one would imagine there had been little, if any, progress in its treatment. The young practitioner, without practical experience, who undertakes the management of gonorrhœal cases by the plan of treatment generally recommended in these works, with nauseating mixtures and conglomorate injections, will certainly be discouraged, and find his cases dragging along, or quit him, to become rounders. In cases of acute gonorrhœa I have, for eight or ten years, used carbonate of lithia to alkalinize the urine, and find the five grain compressed tablets, one taken three times daily, very convenient, fulfilling every indication better than any other salt. I now rarely find it necessary to give any other remedy internally.

Should the case fail to respond to the following injection, and not show marked improvement in two or three days, two sandalwood oil capsules may be given, three times

daily, for three or four days. The injection I have used in cases of acute and sub-acute gonorrhœa for more than a year, with the most gratifying results, especially to the patients, who have recovered in from two to seven days, and paid me from one to three visits, is the following:

℞ Resorcin, - - - - - ℥j
Acid. Boracic, - - - - gr. xx
Zinci acetatis, - - - - gr. ¼-½
Aquæ destillat., - - - f. ℥iv. M.

Of this solution two teaspoonfuls are injected three times daily. The germicides, resorcine and boracic acid are so slightly astringent, that it requires the additional zinc salt to restore capillary tonicity. This injection is quite or nearly painless.

In the treatment of the latter stage of sub-acute and chronic gonorrhœa, without stricture or granuloma as a complicating factor, I have had the happiest results follow the use of the following injection:

℞ Hydrargyri chloridi corrosivi, - gr. ¼-ss
Zinci chloridi, - - - - - gr. ss-j
Aquæ destillat., - - - - f ℥ viij M.

Sig.—A tablespoonful to be injected well down into the urethra, three times daily.

Corrosive sublimate injections are by no means a recent addition to the list. The rationale of their use, however, is recent. As in the injection for acute cases, the germicidal constituent must be so sparingly used (otherwise it produces great pain and reactive inflammation), that I find it very advisable to combine a more astringent salt; and the chloride of zinc is the one I have selected, for obvious reasons. Without doubt, a mild injection of corrosive sublimate and chloride of zinc is destined to be *the* injection for sub-acute and chronic gonorrhœa.—*Z. T. Dellenbaugh, M. D. The College and Clinical Record.*

Kairine—The Latest Rival of Quinine.—This new antipyretic agent has as yet attracted but little notice in this country, although it has for some time been the subject of investigations by our German confrères. It was discovered about a year ago by Dr. Fisher, of Munich, who states that it is the hydrochloride of oxyethylquinolinehydrid. If there is anything in a name, there ought

to be no doubt of the value of the remedy, but this is a busy world, and life is short, so the name has been mercifully changed to kairine. The testimony thus far collected, concerning the properties of kairine, is somewhat conflicting. Dr. Girat has experimented largely with it on animals, and has found its lowering effect upon temperature to be very constant. It also slows the pulse and diminishes the number of respirations. He administered the drug hypodermically, and states that the member into which the injection was passed became paralyzed. The sensibility of the part was blunted, passing sometimes to complete anæsthesia. Elimination occurs, in part at least, by the kidneys, and is tolerably rapid, the presence of the substance in the urine being determined within twenty-five minutes after its administration. The urine acquires a dark green color. According to Dr. Girat's experiments, the toxic dose is said to range between one and two grains to the pound of the weight of the animal. Dr. Filehne (*Berliner Klinische Wochenschrift*, April 21, 1883) concludes, from observations made by him in disease, that kairine is a most valuable febrifuge, effective in all conditions accompanied by elevated temperature. He has employed it with success in typhoid fever, acute articular rheumatism, septicæmia, phthisis and pneumonia. He recommends its use tentatively in commencing doses of seven and a half grains per hour for four hours, or until the temperature has fallen to 100° F. The dose is then lowered to three or four grains, to be again increased when the temperature begins to rise. It is stated that by carefully experimenting during the first day, the proper dose may be ascertained for each individual, which may then be adhered to in the subsequent treatment. These favorable effects have not been recorded, however, by all observers. Professor Riegel reports most unsatisfactory results in the treatment of pneumonia by kairine (*Allgemeine Medicinische Central-Zeitung*, July 28, 1883). He was unable to obtain any notable reduction of temperature by four hourly doses of seven and a half grains each, and even larger amounts were often powerless to produce the desired effect. Even when he succeeded in reducing the temperature nearly to the normal, it often rose again in spite of repeated doses of the remedy. As regards the pulse, it was by no means reduced in frequency as the temperature fell, and, furthermore, it was much weakened. An improvement in the subjective sensations of the patient,

as described by Filehne, was not met with, but, on the contrary, there was repeatedly observed such a depression, amounting almost to collapse, that it was necessary to discontinue the kairine and resort to stimulants. The same effect has been noticed by Seifert. Professor Riegel concludes that kairine is a dangerous remedy, in pneumonia at least, chiefly because of its depressing action upon the heart, and he cautions against its use in asthenic forms of the disease. It is evident that further trials are necessary before the exact value of this new substitute for quinine can be determined, and it is doubtful whether it will be able to maintain the high character as a safe and certain antipyretic which the early experimenters claimed for it. In fact, few new remedies answer fully to the expectations of their introducers.—*Ibid.*

Diagnostic Value of Uterine Hemorrhage after the Menopause.—During the course of a late clinical lecture on malignant disease of the cervex uteri, Dr. T. Gaillard Thomas stated, as an axiom in gynecology, that if a woman who has normally ceased to menstruate begins to have uterine hemorrhage, always suspect carcinoma. Not infrequently you will see in the medical journals the reports of cases where women who have passed the change of life have begun to menstruate regularly again: but such accounts are altogether deceptive, and, if these cases could be followed out, it would be found, with scarcely a single exception, that the uterine flow was merely the indication of the presence of malignant disease. In other words, there is absolutely no such thing as a return of the menses when a woman has once reached the normal menopause. Not long since a patient of mine in the Woman's Hospital, who is sixty years of age, began to have a flowing from the uterus, and, as there was no indication of any external disease, I applied the curette to the endometrium and drew out some pulpy masses, which I sent to a well-known microscopist for examination. The report that I got from him was that the growth was not malignant in any respect, but was simply a form of polypus.

I am perfectly sure, however, that the microscopist is wrong, and for this reason: in the uterus of a woman of sixty, polypi never develop. The organ at that age is completely atrophied. Sometimes in women who have passed the menopause you will find uterine tumors which

have all the appearance of fibroids. They are not by any means fibroids, however, but sarcomata.—*N. Y. Med. Journal*, Sept. 1, 1883. *Medical News.*

Summary of Observations on the Action of New Remedies.—In December, 1882, at the suggestion of my visiting physician, Dr. J. J. Reid, I began a series of observations on the therapeutic results obtainable from certain drugs, to which medical attention has more recently been drawn. As house physician of the second medical division at Charity Hospital, a large field for study was open to me, and considerably over one hundred cases were recorded. These experiments lasted from December 1, 1882, to April 1, 1883, and were made with the following drugs:

1. Convallaria maialis, fluid extract.
2. Manaca, fluid extract.
3. Eucalyptol.
4. Yerba santa, fluid extract.
5. Chekan, fluid extract.
6. Ol. Gaultheriæ (in rheumatism).
7. Lippia Mexicana, fluid extract.
8. Quebracho, fluid extract.

The first one of the list, the lily of the valley, is the most important, and at the present moment far the most interesting one of the series. I shall therefore give, in somewhat fuller detail, the account of the results obtained with it.

1. *Convallaria.*—The cases treated with this drug numbered fifteen in all, there being nine cases of organic heart disease, five cases of cardiac failure from various causes, and one case of Bright's disease. The preparation used was the fluid extract.

* * * * * *

There were nine cases of organic heart disease, in most of which considerable hypertrophy had already occurred, or dilatation had even taken place. In six of these cases a moderate effect was obtained from the remedy; in three there was no result. In none of the cases in which irregularity or intermittency of the pulse was marked did convallaria affect the heart-rythm. It has been claimed that convallaria is more adapted for cases of functional than for cases of organic heart disease; but the amount of relief which some of the above cases obtained was very considerable, and I cannot but look upon the drug as an occa-

sionally valuable agent, even in the most advanced forms of cardiac disease. The results obtained in the remaining six cases were not much better than those from the first nine. Five of these cases were cases of cardiac failure from acute disease, from hemorrhage, or from depraved general conditions. Of these five, one only was not benefited at all; and in several cases the results were very satisfactory.

I found it necessary, however, in most cases, to give doses considerably in excess of the ordinary ones. Several cases took ℥ i. of the fluid extract t. i. d. without bad effect; one case, No. VIII, took ℥ij. t. i. d., and was nauseated by it: but the patient had been suffering from chronic gastro-catarrh before, and it is possibly unfair to attribute her vomiting to the drug alone.

One word as regards the diuretic effects of convallaria. I am sorry that I did not have the urine measured in all the cases from day to day. In the only case in which that was done, No. X—one of advanced disease of the kidneys—the amount of urine was not increased, and the dropsy was not affected. But there was certainly no very marked diuresis caused by the drug in any case, for it would surely have been brought to my notice.

2. *Manaca.*—Twelve cases were treated with this drug—all cases of chronic rheumatism. In the cases which were benefited, the heat and swelling rapidly disappeared from the joints: the pain on motion of the limb and consequent disability soon became better. In almost all cases I began with the usually prescribed dose—five, ten, fifteen drops—but was obliged to increase it to two drachms or half an ounce, before any decided effect was observed. The preparation used was the fluid extract prepared by Parke, Davis & Co.

Of the twelve cases of chronic rheumatism, seven received very marked benefit from the drug: one was moderately relieved, and in four cases no effect at all was perceived. I regard the drug as certainly worth a trial, at least in these very common and often very troublesome cases.

3. *Eucalyptol.*—My attention was drawn to the use of eucalyptol in cases of phthisis, chronic bronchitis, etc., by a writer in the *Berl. Klin. Wochenschrf.* of last year, who recommended it both internally and by inhalation in these cases. Fifteen cases in all were observed: Merck's preparation of the drug was used. It was claimed that it lessened the cough and expectoration, diminished fetor, etc.

Fifteen cases were treated, in only four of which the patient was distinctly benefited. Four cases were relieved to a small extent, and seven cases were not affected at all. Still the cases that did well under it obtained marked relief. It seems to be of most use in cases with very abundant muco-purulent expectoration.

The inhalation of the vapor from a respirator containing a sponge upon which a few drops of eucalyptol can be poured is undoubtedly a valuable method of administration of the drug.

4. *Yerba Santa.*—A large number of cases were treated with this drug, which has been much vaunted as a stimulating expectorant. There were 41 cases observed in all, 30 of them cases of phthisis, second and third stages, and the rest bronchitis with asthma and emphysema, Bright's disease, etc. I cannot say that the results have been in any way encouraging. In only 9 cases was any real benefit observed; in 11 a moderate amount of relief was obtained; 21 cases were not affected at all. Nay, more than that, in a very large number of cases—17 in all—gastric derangement, nausea, and vomiting was caused by the drug. I cannot, therefore, look upon verba santa as a very important addition to our list of expectorants.

5. *Chekan.*—This drug belongs to about the same class as the one last considered, and can hardly be looked upon as of much more value. Twenty-one cases were treated with it, most of them cases of chronic cough from phthisis, bronchitis, etc. In only 8 cases was marked relief in the cough and expectoration afforded by the drug; in 2 or 3 a slight effect was noted; in the remaining 11 cases there was no result at all. In 3 cases the medicine disagreed, caused nausea and vomiting, and had to be stopped. The fluid extract was the preparation used, and the dose one drachm to half an ounce t. i. d. Here, then, is a result which is hardly more encouraging than that obtained with yerba santa.

6. *Oleum Gaultheriæ.*—This drug was carefully tried in four cases of severe subacute rheumatism, with moderate success. The doses used varied from five to ten drops three or four times a day, and no other treatment whatsoever was employed. In all four cases much relief was obtained from the drug: in all of them the swelling, the pain, and the local heat soon diminished, and the patients were shortly convalescent; but in every case, also, a certain amount of disability was left which the drug did not relieve,

and for which recourse had to be had to frictions, massage, etc.

7. *Lippia Mexicana.*—Twelve cases were treated with this expectorant, of which the fluid extract was given in half-drachm to half-ounce doses t. i. d. A somewhat better result was obtained than was done with the other two expectorants tried. In seven cases out of the twelve the harassing cough was markedly relieved, enabling patients to obtain a comfortable night's rest who had previously been able to get it only by a free use of narcotics. Five cases were not affected at all; but in no case was there seen the disagreeable gastric disturbances caused by both yerba santa and chekan. I look upon it, therefore, as a remedy of some value for the relief of an often very distressing symptom.

8. *Quebracho.*—Excellent results were obtained with the fluid extract of this drug. Nine cases were observed, and in all of them save one great relief was obtained from the dyspnœa. The cases comprised ones of asthma, valvular cardiac disease, Bright's disease, chronic bronchitis, and phthisis, and in all but one case of phthisis respiration became easier, the blueness disappeared from the finger ends and the prolabia, and the patient's general condition became very much better. The doses were half a drachm to two drachms t. i. d.—*Dr. W. S. Gotthiel. N. Y. Med. Record*, September 8, 1883.

Nothnagel on Chronic Intestinal Catarrh.—Professor Nothnagel, at the meeting of the Royal and Imperial Society of Physicians at Vienna on May 18th (*Wien. Med. Blätter*, May 24th and 31st), spoke on the subject of chronic intestinal catarrh, which, he said, has been little mentioned in text-books. There is also no explanation given, in physiological text-books, of the fact that healthy individuals have generally only one stool in the twenty-four hours; and Nothnagel thinks that no explanation can be given, but that it is one of those arrangements, depending partly on the anatomical relations of the parts, and partly on innervation, for which we cannot account. Chronic intestinal catarrh may be considered to be present when mucus appears in the motions, although the absence of mucus must not be regarded as conclusive evidence against the existence of catarrh. Nothnagel divides the cases of

chronic intestinal catarrh into four classes: 1. Those patients who have a stool every second or third day, often produced artificially: this is the type of primary chronic catarrh of the large intestine, and depends, according to Nothnagel, on diminished anatomical activity of the ganglion-cells: 2. Cases where a stool is passed daily, but each time thin, pulpy, and mixed with mucus: 3. Cases with irregularity in the state of the bowels, sometimes constipation, sometimes diarrhœa, and sometimes an alternation between the two: the diminished activity of the nerve-cells explains the constipation, and the irritation of the fæces causes eventually the diarrhœa, which may also be excited by a very small error in diet: 4. Cases with continued diarrhœa. Here, however, chronic ulceration of the bowels must be distinguished from catarrh. Where diarrhœa is present without ulceration of the large intestine, Nothnagel has always found an affection of the small intestine as well. When the food does not undergo its normal changes in the small intestine, it acts as an irritant on the mucous membrane of the colon, and causes the diarrhœa. Some patients have a stool after each meal, some after a mid-day meal only, and some after an evening meal only. Nothnagel would explain this by referring it to nervous influence.—*London Med. Record.*

The Decay of Hospital Teaching.—It is to be feared that the modern amplification of the technical element in medical practice has not been altogether free from a certain pernicious effect, notwithstanding its great advantages on the whole. That it has rescued a great proportion of chronic invalids from the limbo for incurables there can be no doubt, or that *ipso facto* it has exalted medicine in the eyes of the world. We may concede, too, that as a direct result of its action in this direction, it has heightened the devotion of physicians to their art, and drawn into the profession a great number of able men who, but for some such elevation of medicine, would have chosen other callings. In the main, therefore, it is beyond question that the ascendant reached of late years by the manipulative phase of therapeutics has been beneficial. It seems open to doubt, however, whether our system of teaching tactics in the presence of acute disease has not been clogged as the result. It is but a few years ago that chronic diseases

of almost all sorts were reckoned among the *opprobria medicorum:* now they are hunted down with so much ardor and with such a multifarious enginery, that there really seems to be some danger of such commonplace affairs as fevers and phlegmasias, to say nothing of the diatheses, playing the part of the tortoise to our hare.

Why do men feel doubt as to the real nature of the present visitation of pestilence in Egypt? Why does it remain for weeks a matter of uncertainty whether such and such an outbreak is really one of yellow fever or not? Why are people with the measles sent to small-pox hospitals, and others quarantined for acne? Such things happen far too often, and yet men acquire dazzling skill in "physical" diagnosis and grow wonderfully expert with all sorts of instruments. It is to be feared that this state of things is due in great measure to the fact that medical students, and those practitioners who resort to the great cities for supplementary instruction, have been dazed with the glamour of these fine accomplishments. It is the students that are at fault, for the teachers know well enough that it is general medicine that most needs to be dinned into the ears of the pupils, and that it is the ordinary run of fevers and the like, such as are to be found by the score in our hospitals, that should claim their chief attention; but, while they use all possible means to lead students to this path, they are met with deaf ears, except when the matter is one that has to be learned in order that an examination may be passed.

No doubt it is more attractive to pass one's time in striving after manual dexterity than in the more homely study of constitutional conditions, and to this fact we may impute the growing neglect of the good old habit of "walking the hospitals." It must be allowed, indeed, that the latter was often carried out in a perfunctory way, but none the less is there reason to think that the systematic study of cases of acute disease day after day would make men really good practitioners with far more certainty than any amount of manipulative training.—*N. Y. Med. Journal*, September 1.

Therapeutic Value of Nitro-Glycerine.—At a recent seance of the Societe de Therapeutique, this subject came under discussion. M. Huchard had experimented with a one per cent. alcoholic solution, in the dose of from

one to six drops. After from four to six minutes there supervened cephalalgia, vertigo, a sensation of fullness in the head, ringing in the ears, and amblyopia. At the same time there was marked congestion of the face, acceleration of the cardiac movements, with dicrotism of the pulse, which became stronger and more rapid.

In a word, nitro-glycerine induces cardio-vascular excitation, with cerebral hyperemia and fall in peripheric tension. It may then be considered as analagous in its action to nitrite of amyl, and may be used in aortic diseases and in cases where cerebral anemia is present, through troubles of circulation.

M. Huchard has employed it in a case of aortic insufficiency, where vertigo was complained of, accompanied by angina pectoris. In this case much benefit was experienced, as also in two other cases of angina pectoris; in another case it gave no decisive result. M. Huchard and other French observers do not seem to have obtained the beneficial results claimed for the drug by English physicians in affections of the respiratory organs.

M. Huchard uses the following solution:

℞.—Sol. nitro-glycerine (one per cent.), 30 drops.
Aquæ destill., - - - - - - - - 300 grams.
M. Dose: A dessert-spoonful three times daily.

In the discussion which followed M. Huchard's communication, the general opinion of the society seemed to be against the medicament, as one of great and dangerous powers, whose therapeutic effects were not as yet sufficiently investigated.—*Western Lancet.*

Alkaloids of Decomposition (from report of the Congress of German Surgeons, by Roswell Park, M. D., in Annals of Anatomy and Surgery).—Mass (Wurzburg) has been pursuing studies on this topic, following those made by Thiersch, Bergmann, Brieger, and others. After treating masses of decomposing flesh with ether, chloroform, and amylic alcohol, he isolated three different vegetable alkaloids; these, when injected into living animals, showed the following effects: the first caused tetanic spasm, the second acted like morphine, and the third like strychnine. The possibility of a form of septicemia from the absorp-

tion of these alkaloids generated during an unhealthy wound-process was alluded to in the discussion.—*Louisville Medical News*, Sept. 15.

Bacillus Tuberculosis not a Parasite.—M. le Professeur Grasset (Montpelier) does not regard the bacillus tuberculosis as parasitic. He says for the bacillus to be parasitic, it must be an independent being, like the tinea or the acarus, without any possible analogy in the healthy or morbid economy. But if the bacteria are anatomical elements like the giant cell, all the recent researches, however full of interest, in no wise demonstrate the parasitic nature of tubercle. The main question, then, is to know if in certain anomalous morbid particular circumstances, bacteria cannot be seen to develop in the organism without the entrance of any germ from without, solely by the transformation of the normal elements of our tissues. On this point MM. Bèchamp and Estor, whose works I have carefully followed, seem to me to have clearly demonstrated, (1) that there exists in our tissues molecular granules—the ultimate atom of physiological divisibility; (2) that these molecular granules can be cultivated in suitable media outside the body and live as ferments of their own life; (3) that the same granules are in certain anomalous or pathological conditions susceptible of being transformed into bacteria. Conclusive experiments prove these facts; pieces of liver placed immediately in pariffin, cromic acid, or even a fusible alloy, present in their centre foci of granules and bacteria after a certain time. There is, however, nothing of a parasitic nature. The same occurs in the pathological conditions, where Estor has likewise found bacteria. Hence granules isolated or grouped and bacteria are in no wise parasitic separate beings grafted upon the organism. They are histological elements, nothing more. Remark well that every time new historic elements have been discovered this specificity of form, this characteristic element is thought to have been found. As with the "cancer cell," the "tubercle cell," "the giant cell," so it is to-day with the bacteria. The most careful study, then, always shows that this specificity of form does not exist, that there is only specificity of function. I am convinced that in this doctrine of Bèchamp and Estor lies the only way of reconciliation be-

tween clinicians and actual investigators. The laws of the economy, the spontaneity of disease, are too much neglected when a germ from without is necessary to develop the furuncle, while all explains itself clinically—if these bacteria can be produced by a morbid change of the normal element of our tissues. Note, moreover, that thus we attack the interpretations of M. Pasteur, merely, and not the facts, for his most brilliant achievement is that from vaccinations. This agrees much better with the old theory of virus than with the parasitic ideas. What parasite can be attenuated and give immunity from itself? In a word, bacteria does not prove parasitism, because the bacteria can be formed in the body without a germ from without. Now, to return to tuberculosis, recent researches render concise and conplete the pathology of this disease. They show in what lies the element of transmissibility; but if they support the virulent nature—the contagious character—of the disease, they are no more proof of its parasitic nature than the experiments of Villemin.—*Gazette des Höpitaux. Canadian Practitioner.*

Medical Baronetcies.—So far as we can learn, twenty-six baronetcies have been conferred on members of the medical profession during the last hundred years. George III bestowed baronetcies on Sir Walter Farquhar (1796), Sir Richard Jebb, Sir Everart Home, and Sir Henry Halford (1809). The baronetcies of Jebb and Home are now extinct. George IV gave baronetcies to Sir M. Tierney and Sir Astley Cooper (1821). The baronetcy of Tierney is now extinct. William IV conferred baronetcies on Sir Charles Mansfield Clarke (1831), and Sir Benjamin Brodie (1834). We believe the following is a complete list of the baronetcies bestowed on members of our profession by Her Majesty: Sir James Clark (1837), Sir Henry Marsh, Sir Philip Crampton (1839), Sir Henry Holland (1853), Sir Charles Locock (1857), Sir William Fergusson (1866), Sir James Simpson (1866), Sir Dominic Corrigan (1866), Sir Thomas Watson (1866), Sir William Lawrence (1867), Sir William Jenner (1868), Sir James Paget (1871), Sir Robert Christison (1871), Sir William Gull (1872), Sir George Burrows (1874), Sir Spencer Wells (1883), Sir Andrew Clark (1883(, Sir Pascott Hewett)1883). Of the baronetcies conferred by the Queen, one, that of Marsh, is extinct. Of the eighteen

medical baronets created during the present reign, eight survive. Of the eighteen Victorian baronetcies, eleven have been given to physicians, five to surgeons, and two to obstetric physicians. All the eight medical baronets now living practice in London.—*British Medical Journal*, August 4, 1883.

Cremation in New Orleans.—Cremation is theoretically accepted by many sanitarians and other people who study the public health, but in the minds of the great mass of people it makes but little headway—less, no doubt, in this country than in Italy and Germany and most of the other European countries. The crematory established by the eccentric Pennsylvanian is still the only one in the United States. In it about thirty corpses have been reduced to ashes, and a movement was started to erect a crematory near New York, but nothing came of it. There are, however, many crematories in Europe, and many strong associations that advocate the general adoption of this method of disposing of dead bodies.

The question is really a sanitary one, and the Christian doctrine of the resurrection of the body should not enter into it; for science shows that a crematory simply does quickly what putrefaction does slowly. This view of it has been forced upon the people of New Orleans by circumstances of location, and a grand jury in that city has recently given cremation the only official recognition it has received in this country. The jury in question recommended the establishment at public expense of a crematory to burn the bodies of those who die of contagious diseases. On account of the proximity of water to the surface in that city, the number of interments above ground in sealed tombs is rapidly increasing. In times of epidemics, this practice endangers the health of the city, and it is never free of objection. If a crematory is erected in New Orleans for the limited purpose mentioned in the recommendations of the grand jury, it is very probable that the custom which has the approval of the leading scientists in all parts of the civilized world, and which was in early times generally practiced, will be applied in all seasons of the year, and will spread to other cities. New Orleans certainly needs it for sanitary reasons, and what New Orleans is in urgent need of may soon be found not wholly undesirable in other considerable cities of the country.—*Atlanta Constitution.* (*N. O. Pic.*)

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EDITORIAL.

THE STATE OF EVIDENCE IN REGARD TO THE MORPHOLOGY OF THE BLOOD IN YELLOW FEVER.

The physical characteristics of yellow fever blood as observed post-mortem, such as its dissolved, dark, liquid appearance, always favored the notion that this fluid suffered notable destructive alterations in this disease. Its rapid decomposition, the jaundice, hemorrhages, ataxia, coupled with the deadly and fulminating character of the frightful epidemics that swept over the Spanish Peninsula in the early part of this century, singularly strengthened the doctrines of ante-mortem decomposition held by some of the great teachers of those days. When the microscope was introduced as an adjuvant to the dissecting table, and Bienparthy (1844) testified that the corpuscles disintegrated, broke down and dissolved in the fluid plasma, the old notion became more popular than ever. Careful and conscientious observers, however, quickly made their appearance, contradicting Bienparthy's assertion. Lawson, who studied this malady in Jamaica, wrote as early as 1802, that the theory of disorganization "had no foundation; the blood was not dissolved, on the contrary, the corpuscles appear entire and well shaped." Dr. John Davy, in 1847, had observed long before that if the blood of yellow

fever cadavera was examined, microscropically, "the corpuscles were seen shrivelled and contracted by it from incipient putrefaction, but this shrivelling (probably meaning crenation) *was never visible when the blood was drawn from living patients.*" Prof. Joseph Leidy, whose dicta are always authoritative, if not final and conclusive in regard to histological matters, affirmed in 1854, that he had not been able to discover the slightest evidence of the destructive process suffered by the morphological elements of the blood in this disease, as described by Bienparthy.

Dr. J. Crevaux, a surgeon in the French navy, and evidently a competent observer, who studied this disease in French Guiana, in 1877, states clearly and definitely that he could find no unusual alterations in the blood corpuscles. Guiche, who examined specimens of yellow fever blood, from the Madrid epidemic in 1878, also reasserts their unaltered appearance.

In 1881, Dr. H. D. Schmidt, pathologist at our Charity Hospital, who stands foremost in the list of yellow fever histologists, wrote: "it must be admitted that the condition in which the morphological elements of the blood were found, actually offers nothing remarkable or otherwise, which in any way could be interpreted as peculiar or characteristic of yellow fever."

Prof. Joseph Jones, of this city, who has contributed extensively to the literature of this disease, believes that great alteration takes place in the blood, though the corpuscular element is not specially described as breaking down in the course of yellow fever. He describes, however, the blood corpuscles, as rapidly assuming a crenated form (after removal from body) with minute transudations upon the surfaces. However, in regard to the phenomenon of corpuscular crenation, Woodward, from whom we have culled several of the previous citations, says that it has no specific meaning, and is in reality a phenomenon that commonly follows the simple removal of the corpuscles from the vessels. Though it happens more often as a result of the method of manipulation employed in mounting the prepa-

ration, such as excessive pressure on the corpuscles in placing the cover glass, or by exposure to the atmospheric air, etc. This certainly seems to be the case in yellow fever, as the globules in the specimens mounted according to Woodward's method by Dr. Sternberg, of the Havana Commission, were, as a rule, free from all marginal indentations or malformations.

Among the most recent and interesting contributions to this subject, Dr. Charles Finlay, of Havana, a gentleman as well known for the originality of his investigations as for the conscientious and able manner with which he conducts them, asserts (*Patogenia de la Fiebre Amarilla*, *Anales de la Real Academia de Ciencias de la Habana*, August, 1882,) that not only is the integrity of the blood corpuscles maintained in yellow fever, but that their number is apparently *increased* during the course of the malady. This writer believes that the disease in question is always accompanied by a peculiar lesion of the vascular endothelium, which is a characteristic of it as the cutaneous eruptions are of the exanthemata or the ileo-cæcal lesions of enteric fever. This lesion, manifested ultimately by the fatty degeneration of the capillaries in various organs, impairs the efficacy of the capillary walls and allows of an abnormal exosmotic transudation of the liquid constituents of the circulating fluid into the neighboring tissues. It is in endeavoring to prove his theory of endothelial (vascular) impairment that he prominently adduces the valuable facts of his hæmatometric investigations. His observations appear to us so new and interesting that we venture to quote the paragraphs in which they are described, in their entirety.

"To prove directly the occurrence of this condition (vascular leakage) would be, in this age of 'anti-venesectionism,' a very difficult matter, in, view of the large quantities of blood that would be required for the proper solution of the problem. But we can congratulate ourselves in possessing the micrometric facilities furnished by the method of MM. Malassez and Hayem, for the easy computation of the blood corpuscles—a procedure which, with but slight disturbance of the patient, furnishes the desired evidence. It has been observed, in fact, since the counting of the blood corpuscles has been applied to the clinical study of disease, that in all

those disorders in which there are excessive serous discharges, such as in cholera, diarrhœa with copious liquid stools, and after profuse diaphoresis, whether spontaneous or provoked, that there is a considerable and at times enormous increase in the corpuscular elements of the blood, more especially of the red corpuscles (in some cases even such an exorbitant increase as seven and a-half millions of red cells to the cubic millimeter has been noticed). As Dr. Danlos observes, however, in his important article 'Sang,' in Jaccoud's Medical Dictionary, the increase of the red corpuscles is only apparent and should not be considered as indicating an increased formation of these elements, but as a phenomenon dependent upon the concentration of the blood and a decrease of its total bulk, due to an exaggerated elimination of its liquid parts. This logical interpretation, corroborated in certain diseases by the chemical analyses of E. Smith, Chalvet and Quinquand, came very opportunely to dispel the doubts about the nature of a peculiar clinical phenomenon that for over one year had worried and perplexed both my esteemed colleague Dr. Delgado and myself. We refer to the fact that in yellow fever the proportion of the red globules is progressively increased from the second day of the disease to the fifth and sixth, when it gradually falls again to the normal quantity, to diminish still more during convalescence.

"This discovery was so unexpected that I could not convince myself of its reality until a systematic corroboration had been undertaken: and, in fact, proceeded to count the corpuscles every day of the disease and compared my results with those obtained from the examination of the blood of healthy individuals, recently arrived in Cuba. Renewed efforts only confirmed the results of the first observation. The rare instances in which the original conclusions were not verified, were readily accounted for by the exceptionally profuse hemorrhages observed during life and confirmed after death.

"Dr. Delgado applied the same method of micrometric computation in various pyretic and apyretic affections, and failed to discover any condition in which the progressive augmentation of the corpuscular elements of the blood was anyways comparable to that observed by us. To avoid all sources of error, Dr. Delgado and myself agreed to perform our hæmatometric experiments at times together, at others separately: we practiced our computations in different hospitals, and examined the blood of patients subjected to different methods of treatment as well as that of others who were treated expectantly.

"The physiological data from healthy subjects herein presented were obtained from seventeen individuals, all Spaniards, robust, healthy men, whose residence in Cuba had not exceeded the period of some months. The pathological results were deducted from 121 observations made on 38 patients, whose diagnosis was unquestionable, all having had albuminuria from the third day. Furthermore, fifteen (15) out of these 38 patients died.

Physiological or Normal Data.

Average.....	4½	millions	red	corpuscles	to 1	c. milimeter	blood.
Maximum....	5½	"	"	"	"	"	"
Minimum....	4	"	"	"	"	"	"

The following figures demonstrate the difference observed in yellow fever:

	AVERAGE.	MAXIMUM.	MINIMUM.
1st day of disease	4,550,000	4,740,000	4,430,000
2d " "	4,560,000	5,950,000	3,940,000
3d " "	4,800,000	6,010,000	3,480,000
4th " "	4,740,000	6,200,000	3,600,000
5th " "	3,580,000	6,510,000	4,340,000
6th " "	5,010,000	6,570,000	3,510,000
7th " "	5,080,000	6,200,000	4,260,000

Out of 38 patients 33 presented an increase, during the course of the disease, in the number of corpuscles which was above the physiological average (four and a-half millions), and in 17 the number exceeded the physiological maximum (five and a-half millions).

"It is then an undeniable fact, that the globular elements of the blood are increased in yellow fever, and as regards its significance, we must deduct it from the following considerations, etc."

Interesting and valuable as the data furnished by Dr. Finlay are to all students of yellow fever pathology, they are so unexpected that their future verification, in more extended experiments will be demanded before they can be generally accepted as facts in medical pathology. We really believe (and we base our belief on our great confidence in Dr. F.'s ability and conscientiousness) that the condition of the blood in yellow fever, as presented by this writer, is the existing one; and we are supported in our belief by the remarkably clear, and to us *conclusive*, evidence furnished of the integrity of the blood corpuscles in this disease by the micro-photographs of the Havana Yellow Fever Commission of the National Board of Health. Whoever has examined these beautiful specimens of photographic art cannot fail to be impressed with the final character of the evidence they furnish. Ninety-eight specimens from forty-one undoubted cases of yellow fever, in the San Ambrosio and other hospitals of Havana, were carefully studied, and one hundred and five photographic negatives were made, which show satisfactorily everything demonstrated by the microscope. "These photographs were mostly made with a magnifying power of 1.450 diameters (in many cases 2.000), obtained by the use of Zeiss's one-eighteenth objective and Tolles' amplifier. Probably

no better lens than the Zeiss one-eighteenth could have been obtained for this work, and it is doubtful whether any objective has ever been made capable of showing more than is revealed by this magnificent lens." Well, the field revealed by these photographs (and we have the collection) demonstrates nothing more than the healthiest looking corpuscles, perfectly contoured, without any indentation or crenation about the edges, and floating in a most limpid and undisturbed plasma. If a micro-photograph is fit to demonstrate anything with accuracy, it is a blood-slide. So that, on the score of fidelity in reproduction, we can ask no more than these ideally perfect photographs of the Commission.

We have dwelt upon this rather tedious enumeration of authorities, in order to place in more striking contrast before the reader this series of authoritative and harmonious opinions and observations, with the latest appearances of the blood in this disease, that have been described by certain observers, whose teachings, abounding in fallacy and pretension, threaten, on account of their plausibility, to obtain a certain popularity which, in our minds at least, they are very far from deserving.

Influenced, no doubt, by the microbe-finding mania that is now so extensively prevailing in the medical profession, and possibly instigated, also, by a laudable desire to benefit suffering humanity through the advantages of so useful and enlightening a discovery as that of the germ origin of this disease, these investigators, doubtless highly accomplished in many respects, but palpably ignorant of the technique of the micro-biological laboratory, in this instance, have unconsciously accommodated the results of their observations to those of their pre-conceived ideas. Taking, for instance, the views of Domingo Frèire, of Rio Janeiro, and Carmona y Valle, of Mexico, both of whom found two different parasites in the circulating fluid, it is natural that they should look upon the blood as the natural pabulum of these organisms during their growth. The corpuscular elements of this fluid, according to the first observer, especially,

suffer directly from their presence. "We have surprised numbers of vibrios attacking the red corpuscles of the blood, and adhering to them like leeches. * * * Furthermore, the blood of yellow fever patients always presents deformed corpuscles, mulberry shaped at first, and afterwards, in the last stage, completely cut up (dechìquécetes) and reduced to broken down laminæ, adhering to one another or separated. It is then indisputable, that these organisms live at the expense of the blood globules which, as is well known, are composed of albuminoidal and mineral elements, such as iron and chloride of lime."

No statement could be more opposed to actual observation, and particularly to the lucid demonstrations of the Havana Commission's photographs. If these photographs prove irrefutably that the corpuscular integrity of the blood is maintained in yellow fever, they ought to demonstrate with equal certainty and ease, either the *micrococcus xanthogenicus* (Frèire) or the *peronospora lutea* (Valle). "No such organisms are shown," says Dr. Sternberg, the micrographer of the Commission, referring to various micro-organisms more subtle and minute than those first mentioned, "*in any preparation photographed immediately after collection.*" It was only in those exceptional instances in which the germs of the atmosphere were accidentally admitted into the culture cells, that hyphomycetous fungi and spherical bacteria made their appearance after an interval of from one to seven days."

To express ourselves more cogently, we will ask: What must we believe—the statements of the observers already mentioned, who describe the wholesale destruction of the corpuscular blood elements by parasitic microphytes, as seen under the comparatively low amplification of 450 diameters, or the photographs of the Commission, which exhibit the blood and its elements in the worst stages of yellow fever, under an amplifying power of 2000 diameters, perfectly free from the presence of these pernicious intruders?

If we were obliged to answer directly, we would (and

we think any reasonable individual would) lean on the side of the photographs, for—knowing as we all do, the distorting and perverting influence of the imagination, when exalted and hungering for the realization of a favorite idea—we would agree that the mere statements of men are not always infallible.

But, it is far from our purpose, to assert or even insinuate that the descriptions given by Frèire, Carmona y Valle and others, are altogether products of the imagination; on the contrary, their accounts are perfectly in accord with the narrations of others—they are careful descriptions of certain fungous species—only that these organisms are introduced and developed in the blood after its abstraction from the vessels. If we bear in mind the difficulties that the microscopist of the Havana Commission had to contend against in attempting to exclude atmospheric germs, so that in spite of the most careful precautions, even to the exposure of the culture cells to the flame of alcohol, these minute chambers could not be sufficiently purified, during the brief and apparently insignificant exposure that occurred in mounting a drop of blood at the bedside, we can realize how difficult it is to prevent the development of extraneous microphytes in the blood, even shortly after collection. When we remember the nature of the atmosphere we breathe, as demonstrated by Tyndall, Pasteur, Miquel, Cuningham and others: when we are told that a single microbe can reproduce itself one million times in a day, and in four days can produce one hundred and forty billions of progeny (Ehrenberg), is it then surprising that the yellow fever germ discoverers just mentioned should have seen innumerable infusorial forms, infesting the contaminated if not decomposing fluids they examined? If any one with a little knowledge of the subject will take the trouble to peruse carefully the pamphlets of these writers—a course which evidently has not been followed by many of our colleagues of the lay and medical press, whose lavish and indiscriminate praise has impressed the unwarrantable belief upon the public that the specific ætio-

logical factor of yellow fever has been discovered—he will not fail to notice the loose and reckless manner with which these investigators have come to their conclusions.

It may be said that we are censuring on insufficient grounds, that we have not considered that Freirè and Valle have based their claims upon other than mere microscopical examinations, that they have performed inoculation experiments on the lower animals, etc.,—we will only answer, that these experiments are, if anything, more defective and reflect a greater weakness on the part of the experimenters, as real men of science, than any other part of their researches. We would detail some of the most glaring errors of deduction—it is a rich and inviting field for criticism—but we have trespassed far beyond our usual limits and must refer the continuation of this subject to some of our experienced co-laborers of the scientific press.

CYCLONE SURGERY.

In the report of the Executive Committee of the Associate Society of the Red Cross, of Copiah county, Miss., lately issued at Jackson, we find incorporated a valuable report on the "Surgery of the Cyclone," by Dr. Luther Sexton, formerly of our Charity Hospital, whose zealous and successful labors among the victims of the cyclone disasters at Wesson, Miss., have prominently identified him with the humanitarian and charitable work done at that place. Dr. Sexton summarizes the number of cases treated at Beauregard, Wesson and Georgetown, by himself and other physicians, as follows: Total number wounded, 266; killed outright and died subsequently from the effects of injuries, 75. Diagnoses: Fractures, 50; dislocations, 10; erysipelas, 15; gangrene, 2; capital operations, 2.

In submitting his report, Dr. Sexton concludes by saying: "it is really miraculous that such a tornado could have swept across a country thirty miles in one direction by

about one-fourth of a mile in another, embracing in its course two small towns, and causing such a small percentage of deaths. It is wonderful that even one should have been left to tell the tale at Beauregard on the 22d of April, 1883. When we consider the myriads of missiles, viz: the bricks, mortar, furniture, planks, slates, shingles, and in fact everything that could be used in building or in a general supply store, went pell mell through the air on an almost inconceivable speed, then the large number that escaped with comparative little injury seems almost fabulous."

The appointment of Dr. Sexton, as surgeon to the Copiah branch of the Red Cross Society, a very responsible position, at the critical moment when a reliable executive officer and skillful surgeon was imperatively needed to effectively relieve the wants of the afflicted, speaks sufficiently for the appreciation in which our friend is held in Mississippi and equally well for the good sense of the Committee.

Correspondence.

To the Editors of the New Orleans Medical and Surgical Journal:

In Dr. Bemiss' interesting article on Yellow Fever in Louisiana, I find a statement which requires correction.

Speaking of the cases at Summit, Dr. W. W. Moore writes:

"That the deaths at Mr. Griffin's were from yellow fever, no one who saw them can doubt, and that the disease was brought there in the trunk spoken of there is no *room for a doubt, Mrs. Wilhoft's little boys having just recovered from the yellow fever when she left New Orleans.*" (The *italics* are mine.)

Now, as I was the physician who attended Mrs. Wilhoft's children during Dr. Wilhoft's absence in Europe, I am in

a position to state *positively*, that they never had yellow fever. They had a simple attack of ordinary malarial intermittent. The record of my visits will prove that.

I saw the first child on July 16, and paid two subsequent visits, viz: July 17 and 18. The next day the child was playing in the street. On the 21st, I saw the second child, and paid only one subsequent visit the next day. The only medicine taken was a few grains of quinine.

This certainly does not look like a history of yellow fever, and as I have seen every epidemic, from 1853, inclusive, I think I am in a position to make a tolerably accurate diagnosis.

This is another example of the ease with which wrong deductions can be made from insufficient premises, and how rapidly one may jump to a foregone conclusion when one's desires point that way. It is possible that a great many of the so-called communicated cases rest on equally accurate data.

I. L. Crawcour, M. D.

Reviews and Book-Notices.

Excision of the Knee-joint, with Report of Twenty-eight Cases, illustrated by thirteen photo-lithographs and wood-engravings. By George Edgeworth Fenwick, M. D., C. M., Professor of Surgery, McGill University, Surgeon to the Montreal General Hospital: Dawson Bros. 1883. (Cloth, 8vo., 68 pp. Price $2 25.)

Though excision has been performed oftener for disease of the knee-joint than for any other, excepting the elbow articulation, and its desirability always recognized, it is yet a *questio vexata* with many surgeons whether it is in reality more advantageous, under certain circumstances, to the patient, than amputation of the thigh. In contraposition to the statistics of Hodge, Swain, Pesnières, Bryant

and others, which are unfavorable to excision as compared to the results of amputation of the lower third of the thigh, Mr. Fenwick places the record of the Montreal Hospital, which, though too limited to carry very great weight with it, is yet decidedly encouraging as regards the performance of this conservative operation, and speaks eloquently in favor of the surgical ability of Mr. Fenwick and his Canadian associates.

Twenty-eight cases of chronic disease of the knee-joint were treated by excision in the Montreal Hospital. Twenty of these were operated upon by Dr. Fenwick, and the remaining eight by other staff surgeons. Out of the total number, only two cases terminated fatally, "only one of which can be ascribed to the operation." In two cases, the legs had to be amputated subsequently, and both recovered. All the others left the hospital with useful limbs. The last fifteen were treated with full antiseptic precautions, and all recovered.

Dr. Fenwick attributes much of his success, in the performance of the operation, to a particular method of sectioning the bones. He makes the "Mackenzie," or semilunar incision in opening the joint. After dividing the crucial ligaments with the customary precautions, he exposed the articular surfaces and proceeds with his special treatment of the bone extremities. He says: "I have been in the habit, for some years past, of removing the extremities of the femur with a fine fret-saw, which I have had adapted to Butcher's frame. By a circular sweep from the front, extending backwards, the operator takes away just as much of the bone as is engaged in the disease. After removing the end of the femur after the manner above described, the sawn extremity presents a rounded surface. A thin slice off the face of the bone will, as a general rule, be sufficient. * * * The next step in the operation is to clear away the soft parts from the head of the tibia. * * * In removing the head of the tibia, the section should be made from behind forward, rendering it concave. With care this can be done with such accuracy as to fit it

for the reception of the rounded extremity of the femur—a thin slice is usually sufficient."

When the sawn and carved extremities are brought in apposition, the united surfaces present the appearance, and have the functions, of a ginglimoid joint with a considerable enorthrodial freedom of movement. Dr. Fenwick removes the patella and uses the Watson apparatus and a Gooch splint in fixing the limb. Listerism, with a few exceptional heresies, is followed pretty orthodoxly.

The quickest recovery was observed in a woman, æt. 24, who got out of bed in twenty-eight days.

The most protracted case was a little girl, æt. 12, who labored with chronic disease of the heads of the tibia and fibula, with partial anchylosis; she remained in bed 212 days. In regard to the alteration in length offered by the bones of the limb, we find that half an inch was the minimum and four and a-half inches the maximum shortening following the operation.

The oldest patient was a man aged 42, and in his case no union of the bones took place, and at his urgent request the leg was amputated by Dr. MacCallum. The youngest was a litttle girl, 5 years old, who recovered fully after sixty-two days confinement in bed, with only one inch shorting.

Most of the cases seem to have been permanently benefited by the operation, the cures being of a substantial character, leaving the patients in a condition to resume their ordinary avocations.

The excellent results obtained may be explained by the favorable age of most of the patients, and by the fact, as Dr. Fenwick says, that in Canada and America generally, the working classes are better fed and housed than in the more crowded cities of Europe, where the most unfavorble statistics have been collected.

The illustrations are elegant and well finished—if photographs are to be trusted, the appearance of the recovered joints is highly creditable to the operators, as in several instances the results of the operation are hardly perceptible.

We believe that Dr. Fenwick has written an instructive and interesting menograph, which conveniently portrays the progressive spirit of Canadian surgery.

The Practitioners' Ready Reference Hand-Book. A handy guide in office and bedside practice. By Richard J. Dunglison, A. M., M. D., Author of a New School Physiology: Editor of "Dunglison's Medical Dictionary," and "History of Medicine;" Secretary of the American Academy of Medicine, etc., etc. Third edition. Thoroughly revised and enlarged. Philadelphia: P. Blakiston Son & Co., 1883. New Orleans: Armand Hawkins, 196½ Canal street.

Now that medical literature has become so prolific, that even to obtain a bird's eye view of its progress throughout the world is a matter of impossibility with the majority of physicians, the occasional comilpation of the principal facts gathered in the onward march of our art has become a desideratum and even an imperative necessity with most, if not all of us. In the work before us only practical information, such as that needed in the every day work of the practitioner, has been compiled. As the author says: "The physician is frequently at a loss to know in what direction to look in order to procure such facts and hints as are here collected, some of which are widely scattered through voluminous professional treatises or the—in many instances—inaccessible pages of medical periodicals." We believe, after a careful perusal of the book, that it will fulfil its object and place within easy reach of the practitioner all the information which the hurry of an emergency or the inaccessibility of a library will demand of it. It is on account of its practical character that it is specially to be recommended to the country practitioner, who can readily carry it with him in his buggy and rest confidently that he has with him a safe and reliable book of reference.

This volume, like all others, however, has its faults.

The nineteen pages devoted to tissue staining are too detailed and exhaustive for essentially practical work with the microscope, such as the author would pretend to teach, and yet too defective for the thorough acquisition of the knowledge of section staining such as would be required by any one intending to devote himself to microscopical pursuits.

Some poisons and antidotes are omitted in the table on these subjects. Some defects are also noticeable in the differential diagnostic syllabus on uterine inflammations and in Seiler's laryngological table.

In the directions for the use of the hypodermic syringe, (quoted from National Medical Review), *when* to use certain drugs hypodermically rather than *how* to use them is taught. This, a trivial matter as it may appear to many practitioners, is liable to give rise to a good deal of hesitation to a tyro in the administration of subcutaneous injections. Even among the authorities, the best method of injecting substances hypodermically is yet a matter of discussion. Many recommend, for instance, that the needle of the syringe be inserted immediately under the skin (Wood, Rabuteau and others); others suggest that the best way to avoid abcesses, is to inject only in those parts of the body in which the subcutaneous areolar tissue is very abundant and is loosely connected with the subjacent structures, the needle to be carried to the line of junction of the areolar tissue and muscular sheaths (Guice and others); and again, others advise injection right into the muscular substance, the deep or "parenchymatous" method (Bartholow, Woodbury). This last is the method generally followed in this city, and is the one which experience has taught is the safest and best for the prevention of purulent formations.

The new matter added to the present edition, viz: tables and doses of remedies enlarged and adapted to the pharmacopœia of 1880, is simplified for ready reference. Nutritive enemata, new prescriptions, the prevention of smallpox, tables of differential diagnosis, how to apply bandages,

how to apply immediate relief in recent accidents, suggestions for nursing, collection of data at autopsies, etc., were all needed and form a valuable part of the work.

A Treatise on the Diseases of the Eye. By J. Soelberg Wells, F. R. C. S. Fourth American from the third English edition, with copious additions. By Chas. Stedman Bull, A. M., M. D. Philadelphia: Henry C Lea's Son & Co., 1883. New Orleans: Armand Hawkins, 196½ Canal street. Half Russia, $6 50.

Ever since the appearance of this work in 1868, it has been the acknowledged chief of English text-books on the Eye. To add, at this late day, our feeble chirp of commendation to louder notes of praise would be but wasteful and extravagant excess.

The book comes to us again in its well known form, but the American editor has added much of interest to the matter. Numerous and valuable are these additions to the chapters on Diseases of the Lids, Diseases of the Conjunctiva, Diseases of the Iris, Diseases of the Ocular Muscles, Sympathetic Opthalmia, and Glaucoma; the subject of the removal of iron particles from the vitreous by means of the magnet is fully discussed; and Hughlings–Jackson's views on Optic Neuritis in intracranial disease have been embodied. H. D. B.

A Dictionary of Medicine, including General Pathology, General Therapeutics, Hygiene, and the Diseases peculiar to Women and Children, by various authors. Edited by Richard Quain, M. D., F. R. S.; Fellow and late Senior Censor of the Royal College of Physicians; Member of the Senate of the University of London; Member of the General Council of Medical Education and Registration; Consulting Physician to the Hospital for Consumption and Diseases of the Chest at Brompton, etc. Fifth edition. New York: D. Appleton & Company, 1, 3 and 5 Bond street, 1883. New Orleans: Armand Hawkins, 169½ Canal street. Price, $8 00.

The medical profession can leave no better trace of its present status, and the historian of the future find a clearer and more satisfactory record of the progress of medical knowledge during the latter half of this century, than in this encyclopedic work. It is a worthy mirror of the great activity, scientific, literary and otherwise, that characterize the present "golden era" in medical history.

A glance at the chief articles will satisfy any one of the editorial abilities of Dr. Quain. When we consider the heavy corps of contributors (over 160 in number), whose synoptic, but thoroughly authoritative articles fill up the 1816 pages of this volume, the task of harmoniously blending so many varied texts, from distinguished and recognized authors,—all liable to contamination with the peculiar dogmatism of the schools,—is a performance decidedly worthy of praise. Dr. Quain has accomplished this; furthermore, he has succeeded in thoroughly impressing upon his co-laborers the correct notions upon encyclopedic writing; hence, all the articles are written on subjects most tasteful to the writers, are pithy, lucid in style, and appropriately brief in dimensions. "As indicated in the title page, the work is primarily a Dictionary of Medicine, in which the several diseases are fully discussed in alphabetical order. The description of each includes an account of its ætiology and anatomical features; its symptoms, course, duration and terminations; its diagnosis, prognosis and treatment." General hygiene and general therapeutics are briefly considered. The diseases of women and children are discussed under their respective headings, both in aggregate and in detail. The work has no pretensions as a surgical lexicon, nor does it attempt to invade the domain of materia medica. Neither can it be called a dictionary proper, for in it we find much more than a mere definition of words, the articles being almost of sufficient length to constitute them encyclopedic contributions. As a verbal syllabus it is incomplete, a great number of technical terms, specially the offspring of the modern school of neurology,

have been omitted, and many others pertaining to special departments in medicine proper have not been introduced.

The book is decidedly English in character, all the contributors being, with but few exceptions, of British nationality. Only three American writers figure in the text: Drs. M. G. Echeverria, of New York, the well known authority on epilepsy; Professor Howard, of New York University, and Professor Joseph Jones, of this city. The last contributes an article on yellow fever. It is a carefully and succinctly written resumé of what is known of the disease, and occupies about seven pages. Though we differ very materially in regard to some of Dr. Jones' conclusions on the altered appearance of the blood corpuscles and the dissolution undergone by these bodies in this disease, and in regard to the lesions described as existing in the stomach and other organs, yet we must say that it is one of the fairest and most impartial productions of this writer. No special notions on the nature of the disease or fanciful narratives of ætiological discovery have been indulged in. Theories, when presented, are very soberly discussed, and the intention of instructing the reader, and an absence of personal ostentation, are very commendably exhibited throughout the paper. Dr. Jones' article, as a whole, compares very favorably with those of his distinguished associates, and we congratulate him upon the successful manner with which he has accomplished his delicate task.

The book is printed in very fine type, and contains an immense amount of information. All the writers are, with few exceptions, acknowledged authorities on the subjects they discuss. On this account, each and every article is deserving of perusal, and is of invaluable assistance to the student and practitioner.

A Treatise on Therapeutics. Comprising Materia Medica and Toxicology, with especial reference to the application of physiological action of drugs to chemical medi-

cine. By H. C. Wood, M. D., Professor of Materia Medica and Therapeutics, and Clinical Professor of Diseases of the Nervous System in the University of Pennsylvania, etc., etc. Fifth edition, revised and enlarged. Philadelphia: J. B. Lippincott & Co., 1883. 8vo., pages 740.

This standard work has been brought up to the recent improvements in therapeutics and the new pharmacopœia.

The contained matter is conveniently divided for reference into two parts. Part I being devoted to drugs and part II to "*forces*," or other therapeutic agents, *i. e.*, heat and electricity.

A useful appendix contains an article on the Art of Prescribing Medicines, and comparative tables of weights and measures.

Appearing soon after the new edition of the Pharmacopœia this work goes hand in hand with it, though we think that Prof. Wood, in giving doses, etc., of drugs, might have followed in the footsteps of other recent authors and given the equivalents in metric weights and measures. We think that the effort to introduce said system into this country should meet with every encouragement, and no better method exists than that of introducing it into new works of the character and standing of the one before us.

A Manual of Auscultation and Percussion. Embracing the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurism. By Austin Flint, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc., etc. Third revision. Revised. Philadelphia: Henry C. Lea's Son & Co., 1883. New Orleans: Armand Hawkins, 196½ Canal street. Price, $1 65.

This work of Professor Flint is too well known to need an extended notice at our hands. The fact that it has now reached its third edition is sufficient evidence of the favor with which it has been received by the profession, and

as the author very justly states: "of an increasing appreciation of the importance of the study of auscultation and percussion, as well as of the analytical method by which the study is facilitated."

As a text-book for students and a reference book for the practitioner, we commend the work.

A few additions have been made in the present edition, which will facilitate the study of auscultation.

A Compend of Obstetrics. Especially adapted to the use of Medical Students and Physicians. By Henry G. Landis, A. M., M. D., Professor of Obstetrics and Diseases of Women in Starling Medical College; Fellow of the American Academy of Medicine; Member of the American Medical Association; Author of "How to Use the Forceps," etc., etc. With illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street, 1883. New Orleans: Armand Hawkins, 196½ Canal st. Pages, 107. Price, $1.

This is No. 5 of a series of Quiz compends, issued by this enterprising publishing house. It is undoubtedly a difficult matter to teach within the narrow compass of 107 dmo. pages (questions and answers) the principles and practice of obstetrics. We have never believed that it was reasonably possible to do so, and after attentively reading this little catechism, we are yet far from convinced of its feasibility. We have frequently said, in reviewing similar publications, that it is a serious error on the part of instructors to place such works in the hands of neophytes, ln any of the special branches of medical study. If any practitioner will take the trouble to return (*in mente*) to his student days, he will doubtless remember the many a tough "tackle" he has had with his Cazeaux, Ramsbotham, Churchill, Playfair, or the later Lusk, in order to understand with clearness and precision that elementary study—the mechanism of delivery. Even after straining his eyes and ears to catch the demonstrations of his professor in the lecture-room, with the skeleton and manikin before him, the raw "first

course-man" leaves his bench with either a blurred and distorted comprehension of the subject, or more often with a clearer but sickening conviction of his mental imbecility. It is only by the steady and conscientious study of large texts, plentifully illustrated, that we can hope to instil the correct principles of scientific obstetrics into a mind that is yet uninitiated in the mysteries of the parturient art. To the author's credit we must say that he has evidently striven to do his duty faithfully; we can even admit that all he has written in it is correct teaching: but this we believe is not enough. The author's interrogations are pointed, and reveal a thorough appreciation by him of what is practical and useful to the student. In fact, we can say that the book is a good mnemonic guide—an excellent remembrancer to test the memory of the student; but this is only after he has thoroughly digested the subject in other more nutritious authorities.

Hand-book for Hospitals. State Charities Aid Association No. 32. New York: G. P. Putnam's Sons, 27 and 29 West 23d Street, 1882, 12mo., 263 pages. New Orleans: J. C. Eyrich, 130 Canal street. Price, 50 cents.

This little work was originally prepared for the express use of those members of the New York State Charities Aid Association, whose duty it is to visit the public hospitals in New York county and other counties in the State. "The rapid multiplication of hospitals of all sorts and the general increase of interest in such topics as the care of the sick and insane, institution management, hygiene, pauperism, taxation and the distribution of public funds, have indicated the need of a second edition, which, carefully revised and enlarged, is now offered to the public and especially to all persons concerned in hospital work."

The author (whose name is withheld, but who is nevertheless an admirable writer) addresses his remarks chiefly to women visitors. For, in this country, as he says, there is a growing necessity that women should interest them-

selves in the problem of pauperism, and that in visiting public hospitals and other charitable institutions they should know what they ought to observe, and what we all have a right, as citizens and taxpayers, to demand. "Our leisure class is larger among women than among men, and women can better afford the time for the deliberate, careful and constant inspection which our public charities need."

Thirteen chapters and an appendix make up the book. Suggestions on managing boards, the art of planning hospitals, on hospitalism, or hospital infection, pauperism and medical charity, preventive measures and other kindred questions, are dealt with in a few, short, but masterly strokes. Hospital laundry and other interior details are thoroughly considered; the latest data are furnished, and the reader, without the slightest fatigue, is placed in possession of an amount of sanitary and hygienic knowledge, that a long perusal of more ponderous and drowsy books would scarcely furnish. All those interested or engaged in charitable work should read this book; it is undoubtedly a little gem in its way, a most authoritative and reliable guide —an indispensable *vade mecum* to the practical philanthropist.

A copy of the "*Tranactions of the American Opthalmological Society, Eighteenth Annual Meeting, Lake George, 1883*," has just reached us in time for a brief notice. We have read it carefully, and cordially commend it to all special workers in this line.

The pamphlet contains: A list of the members of the society, 1882–83; the minutes of the society's proceedings; a list of members present at the meeting; a tribute to the memory of the late Dr. Edward Reynolds, of Boston; and twenty-six valuable papers by prominent opthalmologists, of which the following present specially interesting features:

"Serous Effusion into the Vitreous, by W. W. Seely, M. D., Cincinnati, O. Serous Effusion into the Vitreous Humor, causing Total Temporary Loss of Vision, due probably to Malarial Poisoning—Recovery."

The doctor states that there was no difficulty in differentiating this condition from hemorrhage into the vitreous. He says: "The impenetrable cloud of mist made, to my eye, a striking contrast with the solid blackness in some cases, the red appearance in others, of a hemorrhage."

Some months ago I had the pleasure of seeing a patient of my friend, Dr. O. R. Lanng, who presented very similar symptoms. The man had received a slight blow upon one eye. Oblique illumination and the opthalmoscope showed nothing but a dense fog behind the lens; sight was almost gone. Dr. Lanng saw the man a second time, when the vitreous had cleared up to some extent and vision had greatly improved. It may be well to state that in Dr. Seely's case the diagnosis "malarial" was unconfirmed by the "history of any other manifestation" (than the eye symptoms) until several months after the patient's first visit to Dr. Seely, at which time he had a severe chill.

"Hereditary Atrophy of the Optic Nerves, by Wm. F. Norris, M. D., Philadelphia, Pa." Dr. Norris traces "a most interesting history of hereditary atrophy, beginning with the maternal great-grandfather and extending through four generations," eight individuals being affected. "The blindness has usually been transmitted by the female side of the house, and has affected both males and females, but the former much more frequently. It is noteworthy, that an uncle, after being 'blind' became so much better that he could resume ordinary occupations, but this has not been the case in any other afflicted member of the family. The patients deny any consanguineous marriages." In the discussion, Dr. Kipp, of Newark, quotes from Mauthner "cases in which atrophy of the optic nerves was hereditary in a family several generations, but later color blindness had developed instead of atrophy, while in the last members of the family the eyes were normal."

We ourselves know a family in which two members who have come within our ken, and, we have reason to believe, others whom we have not seen, are affected with atrophy.

"A case of anæsthesia of the retina, with concentric limitations of the field of vision. Recovery through inhalations of nitrate of amyl. By Rd. H. Derby, M. D., New York." The treatment was eminently successful; complete recovery ensued. May we not hope for favorable results from the extension of this mode of treatment to alcoholic and tobacco ambliopia, and other allied conditions?

"Remains of the hyaloid artery attached to" (the papilla and) "the crystalline lens. Anæsthesia of the retina. By Wm. S. Little, M. D., Philadelphia, Pa." In this case we have a personal interest, it having been our good fortune to see it in November, 1881, at which time we were assisting on the "eye clinic," Jefferson Medical College Hospital. We were also fortunate enough to have seen the case reported by Dr. Little to this society in 1881, in which the hyaloid artery remained pervious and carried blood, and a most singular sight it was. The vessel, apparently about the size of a small angle worm (direct method), came directly at you out of the fundus, ran up to the posterior surface of the lens, formed a loop, twisted upon itself and ran back to the papilla. It was full of arterial blood—bright red.

"A case of extensive hemorrhage between choroid and sclera. By G. Hay, M, D., Boston, Mass." Such cases should teach us to have a care how we diagnosticate intra-ocular tumor. When this eye was first seen there was chemosis and some engorgement of the conjunctival vessels. The vision "said to be good." About a month afterwards, "focal illumination showed at the upper part of the inside of the eye a surface which appeared stationary, somewhat raised from the normal position of the choroid, slightly uneven, and finely mottled with red and yellow." Drs. Derby and Wadsworth both confirmed the diagnosis of tumor, and the eye was enucleated. Examination showed subchoroidal hemorrhage. Dr. Hay very justly remarks, that we cannot be certain that a tumor of the ciliary body might not give rise to the above mentioned symptoms of

disturbance in the external circulation of the eye, and that the apparently rapid growth of the supposed tumor might have been explained by a supposititious hemorrhagic complication.

Dr. Knapp called attention to a similar case mentioned in his treatise on intra-ocular tumors (p. 261). Dr. T. R. Pooley, of New York, mentioned a similar case which appeared at the New York Eye and Ear Infirmary some years ago. Both eyes were enucleated for supposed gliomata, which turned out to be simply subchoroidal hemorrhages! It seems almost incredible that a surgeon should have enucleated the second eye without having cut open the one first removed.

"Three Cases of Tumor of the Eye. By Henry D. Noyes, M. D., New York." In the first case the eye, after having received two injuries, developed a tumor "attached to the conjunctiva of the inner side of the globe, to the caruncle, to the inner half of the lower lid, to the periosteum of the inner wall and floor of the orbit." The tumor was excised together with the inner half of both the upper and lower lid. The wound was closed by a flap brought down from the middle of the forehead, healing took place well, and sight was good. Three months later, although the primary seat of the tumor remained healthy, the disease recurred in the pre-auricular lymphatic glands and at other places about the head, and the patient died.

Dr. Noyes argues, from statistics given, that in similar cases "an effort to save the eye is always justifiable when its integrity has not been compromised," and remarks: "The disease was completely removed from the place where it at first took root, and the subsequent return was to be ascribed to the constitutional dyscrasia." Although not a partisan of either the local or constitutional theory of the origin of malignant growths, we cannot regard the conclusion of the distinguished author as strictly logical. Taking into consideration that the original seat of the growth had been the scene of a double injury, it might be

justly urged that the tumor was in the first place a local affection, from which as a centre the ultimate dyscrasia had its source. We cannot but believe that an earlier excision, together with enucleation of the globe, and thorough cleansing of the orbital cavity, would have increased the chances of non-recurrence. Surely, it is better for many an eye, which might *possibly* have been preserved, to be enucleated, than for one man to lose his life by malignant tumor! We, who unhesitatingly remove the two eyes of an infant affected with glioma, are we to find here a halting place?

In case two, we have an entirely different set of conditions. We are dealing with a small (75 min. by 5 min.) corucal and conjunctival epithileoma.

"The growth was thoroughly removed by scissors, and the edges of the conjunctiva brought together with sutures." The result, as anticipated, was excellent. Two years after the operation there is no recurrence.

The third case is one of intraocular sarcoma. Here, of course, there is no question of any other procedure than enucleation.

An incipient sympathetic trouble (optic neuritis) in the sound eye of this case resolved itself into a high hypermetropic astigmatism, and the doctor remarks that he has seen more than one case of the sort. It has also more than once fallen to our lot to apply the glasses of the test-case successfully to such alarming symptoms.

"A simple test for simulated inocular fluidness. By G. C. Harlan, M. D. Philadelphia, Pa."

This consists in placing a pretty high plus glass before the good eye, while a plane one is held before the eye said to be blind. The lens, while cutting off vision of all objects beyond the focal length, is regarded as an attempt to aid defective vision by the patient, and therefore excites no suspicion. This idea occurred to ourselves, and was made use of some months ago while examining a "suspect."

"Embolism of the central artery of the retina. By W. F. Mittendorf, M. D., New York." Three excellent his-

tories. Valvular disease of the heart was present in all the cases. It is noteworthy that in one case digitalis having been immediately administered, on the third day the embolus had moved up, restoring circulation and vision to a certain portion of the retina.

"Premature delivery for the prevention of blindness. By Edward G. Loring, M. D., New York." At present, we can only echo an opinion previously published by a medical confrère, that Dr. Loring has carried his idea too far, but at no remote date we hope to have something more definite to say on this subject.

"Case of osteoma of the conjunctiva (with wood cut). By Edward G. Loring, M. D., New York."

We have also received quite an interesting little paper, "Menstrual Amblyopia; by W. F. Coomes, M. D., Professor of Physiology, Opthalmology, and Otology in Kentucky School of Medicine, Louisville, Ky.

(Reprinted from the *Medical Herald*, October, 1882.)

H. D. B.

Publications Received.

Experimental Researches on the Tension of the Vocal Bands. By G. W. Hooper, M. D., Boston. Assistant Physician to the Clinic for Diseases of the Throat, Massachusetts General Hospital, etc.

Hand-book for Hospitals. No. 32. New York. State Charities Aid Association. Putnam & Son, New York.

A History of Tubercolisis from the Time of Sylvius to the Present Day. Being in part a translation, with notes and additions from the German of Dr. Arnold Spina, etc. By Eric E. Sattler, M. D.

Transactions Mississippi State Medical Association.

Contributions to the Study of Neglected Lacerations of the Cervix Uteri and Perineum. By Thos. A. Ashby, M. D., Professor of Obstetrics, Woman's Medical College of Baltimore, etc.

Management of Abortion. By Walter Coles, M. D.

Report on Diseases of Women from the First Congressional District. By R. J. Munn, M. D., Savannah, Ga.

Illustrated Quarterly of Medicine and Surgery. New York.

A Tracheotomy Tube for Gradual Withdrawal and Report of a Case in which it was Used. By H. F. Hendrix, M. D., St. Louis.

Report for the Year 1882–83, *of H. A. Newton, Director to the Board of Managers of the Observatory in Yale College.*

Answer of Thad. M. Stevens, M. D., to charges of the Indiana State Board of Health, together with Statements in proof and other matters. Indianapolis, 1883.

Transactions Michigan State Medical Society for the Year 1883.

Quiz Compend of Obstetrics. By Henry G. Landis, A. M., M. D., with illustrations. Philadelphia. P. Blakiston, Son & Co., 1883.

Remarks on Hydrophobia. By Charles W. Dulles, M. D.

Medical Communications of the Massachusetts Medical Society. Vol. XIII., No. 2, 1883.

Nineteenth Report of the Trustees of the City Hospital, Boston, 1882–83. Boston.

Transactions of the Medical Society of Pennsylvania. Vol. XV., 1883.

Outline Diagrams of the Ear for the Pictorial Record of its Diseases. Cincinnati. A. E. Wilde & Co.

Principles and Practice of Surgery, being a Treatise on Surgical Diseases and Injuries. By D. Hayes Agnew, M. D., LL. D. Vol. III. Philadelphia. J. B. Lippincott & Co., 1883.

Opium Addiction among Medical Men. By. J. B. Mattison, M. D.

Neurotic Pyrexia, with Special Reference to Opium Addiction. By J. B. Mattison, M. D., Brooklyn, N. Y.

A Personal Narrative of Opium Addiction. By J. B. Mattison, M. D.
The Treatment of Opium Addiction. By Dr. J. B. Mattison.
The Curability of Opium Addiction. By J. B. Mattison.
Clinical Notes on Opium Addiction. By J. B. Mattison.

The Continental Magazine. A journal devoted to Literature, Poetry, Romance and the Usuful Arts. Vol. I., February, 1883, No. 2.

Adherent and Contracted Prepuce, commonly called Congenital Phimosis. By Dr. Forest Willard, M. D., Lecturer on Orthopœdic Surgery in the University of Pennsylvania, and Surgeon to the Presbyterian Hospital.

Ambulance Service in Philadelphia. By Dr. Forest Willard, M. D.

The Treatment of Syphilis. By J. Marion Sims. Reprint from *British Medical Journal.*

The American Psychological Journal. Issued by the National Association for the Protection of the Insane and the Prevention of Insanity. Quarterly. Edited by Joseph Parrish, M. D., Burlington, N. Y. P. Blakiston, Son & Co., Philadelphia. Vol. I., April, No. 1.

The Roller Bandage. By William Barton Hopkins, M. D., surgeon to the out-door department of Pennsylvania, Episcopal and University Hospital: Assistant Demonstrator of Surgery in the University of Pennsylvania: Fellow of the College of Physicians of Philadelphia, etc. With twenty-three illustrations. Philadelphia. J. B. Lippincott & Co., 1883.

The American Journalist. Published monthly by the American Journalist Publishing and Printing Company, of St. Louis, Mo. R. P. Yorkston, Editor.

Comptes Rendus de L'Athenee Louisianais, (Paraissant tous les Deux Mois). New Orleans. Imprimerie Franco-Americaine, 102 Rue de Chartres. Livraison 5me, 3e Série. Tome 2.

The Medico Legal Journal. Vol. I., No. 1.

Some Remarks on Naso-Aural Catarrh and its Rational Treatment. By John N. MacKenzie, M. D., late house physician in Bellevue Hospital, New York, etc.

Elements of Histology. By E. Klein, M. D., F. R. S., etc. Illustrated with 181 engravings. Philadelphia. Henry C. Lea's Son & Co., 1883. 12mo., 352 pages.

MISCELLANEOUS ITEMS.

The students' numbers of the British medical and New York medical journals furnish complete and valuable information in regard to medical educational facilities and institutions in this country and Great Britain. It is a commendable enterprize, and one worthy of the great weeklies.

It appears that the ratio of insanity in America is increasing each year more than that of the population. The census estimates make the total number of insane 91,997 in 1880, against 37,432 in 1870. This gives a ratio of one insane person to every 543 of the population, or 1834 per million, and is an apparent increase of over 100 per cent.—*American Psychological Journal.*

Dr. Geo. Lawrason, who distinguished himself last year while an interne in the Charity Hospital by his brilliant microscopical studies, and particularly through his demonstrations of the bacillus-tuberculosis, is now gathering fresh laurels in Philadelphia. Our esteemed contemporary, the *Medical News*, describes his sections of tuberculous lung and lymphatic gland tissue, as "exquisite examples of bacillus staining." It is our earnest hope that he will soon return laden with the fruits of his able and assiduous labors.

The Medical Department of Harvard University is about to celebrate the Centennial Anniversary of its foundation, October 17, 1773. Emeritus Prof. Oliver Wendell Holmes will pronounce an oration. The ceremonies will be specially characterized by the presentation of a portrait of the distinguished orator and of Prof. Henry J. Bigelow. The N. O. Medical and Surgical Journal sends its greeting to the Medical Faculty of Harvard College, and trusts that it will always be what it has been,—one of the great pillars of our educational edifice.

NECROLOGICAL.

The medical profession in Louisiana has been called upon to mourn the very serious and sad loss sustained by it in the death of three of its prominent and esteemed members: Dr. Sabin Martin, of this city, who died August 21st; Dr. William H. Berthelot, also of this city, died August 31st; Dr. C. N. Smith, of Pass Christian, Miss., who died in that town September 18th.

Dr. Martin was born in New Orleans, and at the time of his demise was 75 years of age. His primary studies were made in New Orleans, at the celebrated College d'Orleans,, under the immediate care of *Lacanal*. "At an early age he manifested great taste for all literary and artistic works, which characterized his college exercises, and all who knew him soon discovered that he was born. After completing his first studies he was sent by his parents to Paris to complete his education, and after a short collegiate course, he received his Degree of Batchelor of Sciences and Arts and immediately entered upon his medical studies, for which he had shown a marked preference. He followed the medical courses and graduated with honor, receiving his diploma from the Faculty of Paris. During his stay in Paris and while a student in the brilliant days of Victor Hugo and

the Elder Dumas, Dr. Martin, during his leisure hours, attended all the literary entertainments, and perfected himself in the art of composition. Upon returning to his native State, and while practicing his profession in Donaldsonville, he became connected with the press and for several years edited '*Le Vigilent*' of Donaldsonville. In 1839, together with Drs. Fortin and Daré, he wrote a valuable treatise on yellow fever, which is, even at the present day, a valuable book on this important subject. All who knew Dr. Sabin Martin loved him, and his death is a sad blow not only to his family but to the profession, who loses in him a valuable member and adviser."—(*Times-Democrat.*)

Dr. William H. Berthelot died at Pass Christian, Miss., August 30th, at 9 A. M. Dr. Berthelot was a native of the State of Georgia, and was of French descent on his father's side, his mother being a Georgian. While yet a child he came to this city and resided here up to the date of his death —a period of nearly forty years. Dr. Berthelot was a graduate of the University of Louisiana and was eminently successful as a physician and surgeon. In the latter branch he especially attained a very deserved celebrity. During the epidemic of 1878, Dr. Berthelot took a prominent part in the organization of measures for the relief of the suffering, and during that season was sent out by the Howard Association as one of its physicians. A number of years ago, Dr. Berthelot received the appointment of City Physician, and for a term of nearly six years, conducted with great credit the affairs of that office. Ten or twelve years ago he was appointed Appraiser of Drugs at this point to the United States Customs Service, and held the position to the time of his death.

Dr. Berthelot married in New York the daughter of a wealthy merchant of that city. Four children were the issue of the marriage, three of whom, with the mother, died of yellow fever during the epidemic of 1878. The remaining child, a daughter of 11 years of age, survives her father. Dr. Berthelot subsequently married the daughter of John Henderson, Esq., of this city.

For some time past Dr. Berthelot had been a sufferer with Bright's disease (cirrhotic kidney), which terminated his life.—(*Picayune.*)

Dr. G. N. Smith, a highly esteemed practitioner at Pass Christian, Miss., and well known in our own circles as a most respectable confrère, died in that town on Tuesday, September 18th. A native of North Carolina, he had resided at Pass Christian for thirty-three years, and was completely identified with the best interests of that community, where he was universally beloved. The deceased enjoyed an enviable reputation as a successful physician and accomplished gentleman.

Although 76 years of age at the time of his death, he preserved until recently the vigor of youth, and was annually accustomed to undertake fatiguing hunting expeditions, which no doubt precipitated his regretful end.

Rarely do we find such a practical combination of good common sense, purity of counsel and strength of style as in the book entitled: "The Physician Himself, and what he should add to his scientific acquirements," by Dr. D. W. Cathell, late Professor of Pathology, College of Physicians and Surgeons, Baltimore. We unhesitatingly recommend it to all junior practitioners and even to the older heads, who, we are certain, will find most healthy enjoyment in its perusal. (*Cushings & Bailey, 262 W. Baltimore Street, Baltimore, Md., Publishers.*)

METEOROLOGICAL SUMMARY—AUGUST. STATION—NEW ORLEANS.

DATE.	Daily Mean Barometer.	Daily Mean Temp'rature	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	GENERAL ITEMS.
1	30·092	86·8	62·7	.....	....	Mean Barometer, 36.017.
2	30·053	85·8	63·8	.....	....	Highest Barometer, 36.156.
3	30·051	85·7	61·7	.....	....	Lowest Barometer, 29.849.
4	30·071	86·2	66·2	.....	....	Monthly Range of Barometer, 00.307.
5	30·092	86·2	67·2	.....	....	Highest Temperature, 92.5.
6	30·073	83·4	74·5	.....	....	Lowest Temperature, 73.9.
7	30·008	86·0	67·2	.....	....	Greatest daily range of Temper't., 16.0.
8	29·949	85·3	51·7	.....	....	Least daily range of Temperature, 10.3.
9	29·943	84·0	49·8	.....	....	Mean of Maximum Temperatures, 89.9.
10	29·934	84·2	59·7	.....	....	Mean of Minimum Temperatures, 76.8.
11	29·886	85·0	60·0	.....	....	Mean daily range of Temperature, 13.1.
12	29·935	85·0	67·0	.....	.10	Prevailing Direction of Wind, N. and E.
13	30·051	85·3	70·7	.....	....	Total Movement of Wind, 2,275 Miles.
14	30·103	85·3	68·7	.....	.53	Highest Velocity of Wind and Direc-
15	30·012	81·5	75·3	.....	.19	tion, 27 Miles, N.W.
16	30·038	82·5	73·3	.....	....	No. of foggy days, —.
17	30·056	79·7	78·0	.....	2.08	No. of clear days, 11.
18	30·082	81·0	77·0	.....	.01	No. of fair days, 18.
19	30·072	83·3	75·3	.....	....	No. of cloudy days that no rain fell, 1.
20	30·073	81·4	78·7	.....	.10	No. of cloudy days on which rain fell, 1.
21	30·066	82·4	77·7	.....	.12	Total No. of days on which rain fell, 11.
22	30·053	78·8	84·0	.....	.90	Dates of Lunar Halos, 16th 23d
23	30·016	80·2	81·0	.....	....	
24	29·975	81·5	74·5	.....	.01	
25	29·949	82·1	77·0	.....	.08	
26	29·944	81·0	75·8	.....	....	
27	29·972	81·0	74·3	.....	....	
28	29·974	82·0	70·0	.....	....	
29	29·919	84·8	56·8	.....	*	
30	29·960	82·0	63·3	.....	....	
31	30·032	81·5	58·3	.....	....	
Sums	.....	....	....	.....	....	
Means	30.017	83·3	69·1	.....	4·12	

COMPARATIVE TEMPERATURE.

1873	84·2	1878	83·5
1874	83·9	1879	81·0
1875	79·3	1880	81·3
1876	82·2	1881	82·8
1877	83·1	1882	80·0

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	8.30	1878	5.31
1874	4.82	1879	10.44
1875	8.61	1880	4.60
1876	4.44	1881	4.21
1877	2.54	1882	9.47

*Inappreciable.

M. HERMAN, *Signal Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM AUGUST 25TH 1883, TO SEPTEMBER 22D, 1883, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia	Total Mortality.
September 1	0	11	11	17	4	111
September 8	0	17	13	8	3	109
September 15	0	14	25	11	6	130
September 22	0	15	23	10	7	137
Total	0	57	72	46	20	487

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NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

NOVEMBER, 1883.

ORIGINAL PAPERS.

The Pathological Anatomy of an Aneurism of the Heart.

By DR. H. D. SCHMIDT,

Pathologist to the Charity Hospital of New Orleans.

[Read before the Pathological Society of New Orleans.]

Some months ago Dr. O——, of this city, handed to me for examination a portion of the left ventricle of a heart, in the walls of which was seen embedded a fibrinous mass, which, by ocular inspection, was found to represent an aneurismal fibrinous clot adherent to the diseased and, in this locality, ulcerated endocardium. As I had no opportunity to examine the rest of this heart, I am unable to render an account of its condition, but I was informed by Dr. O——, who had taken part in the performance of the autopsy, that it had been found perfectly healthy, with no signs of valvular or any other disease. The case, therefore, appears as one of circumscribed chronic endocarditis, terminating in the formation of a fibrinous aneurismal clot. The microscopical examination of the whole specimen will form the chief subject of this paper, though, before proceeding to the description of the pathological condition of the tissues concerned, I will render a brief sketch of the clinical history of the case, such as it was furnished to Dr.

O——, by his friend Dr. D——, who attended the patient during his illness up to his death.

The patient was an old, well-known apothecary of this city, Mr. I——, 60 years of age, well built, and, in his former life, enjoying good health. When, two years ago, Dr. D—— attended him, on his first attack of the disease in question, he had been taken ill suddenly, and suffered from intense pain under the left nipple, accompanied by fever, in which the temperature of the body rose to 102 F. Dr. D——, in company with Dr. J. H. L——, diagnosed the case as one of angina pectoris, and accordingly freely administered morphine by hypodermic injection, together with quinine by the mouth, and after the lapse of a week the patient had apparently recovered. Nevertheless, from this time up to his death, any immoderate exercise would be followed by a sharp pain in the region of his heart. No abnormal sounds, or other physical signs of disease of the valves of the heart, or of the blood vessels, could ever be detected, though the patient was repeatedly examined by Drs. D——, O—— and L——. About a year before his death, Prof. Bemiss, was called in consultation, who, from careful and thorough examination, pronounced the case to be one of aneurism of the ascending portion of the arch of the aorta. Although Dr. D—— attended upon Mr. I—— on various occasions afterwards, he was never able to detect any abnormal sounds about his heart, for which reason he pursued a simple palliative treatment. At intervals the patient suffered from feelings of great despondency, with occasional pains in his left side, aggravated by exercise, though he never had another decided attack of angina pectoris, nor of fever. Indigestion, to which he was subject, produced uneasy sensations about the cardiac region. On the evening of his death, he retired at his usual time, but, after a few minutes, jumped up with a scream, and fell on the floor, dead. The autopsy, as already mentioned, revealed nothing abnormal about the valves of the heart or the blood vessels.

The portion of the heart handed to me (fig. 1) represented a part of the ventricular septum, and the anterior wall of the left ventricle, including the deepest recess, or point of the ventricular cavity. The fibrinous clot (fig 1, *a*), therefore, was partially attached to the septum, and partially to the anterior wall of the ventricle, reaching into the deepest part of the latter, corresponding to the apex of the heart. Above, the clot reached beyond the origin of one of the papillary muscles (fig. 1, *c*), from which two tendons arose, to be inserted into the wall of the ventricle beyond the clot, as is seen in the drawing. The fibrinous clot itself consisted of a number of layers (fig. 2, *a*), the superficial ones of which, representing the most recent deposits of fibrin, were quite soft, and easily detached from the deeper ones, forming the larger portion of the clot, and being of a greater consistency. Measuring nearly half an inch in thickness the clot was buried almost entirely in the wall of ventricle; in length, it measured two inches, and in width one and a quarter inches. Upon the cut surfaces of the walls of the ventricle a considerable number of larger or smaller white spots were observed, which represented neoplastic tissue, or hypertrophied portions of the perimysium of the muscular bundles of the ventricle; while the myocardium itself presented a yellowish tint, indicating fatty degeneration of its muscular elements. That part of the endocardium upon which the fibrinous clot rested was not only affected by chronic inflammation, but moreover ulcerated, while the rest of this membrane (figs. 1 and 2, *b*) was likewise thickened by the inflammatory process. The outer surface of the ventricle was covered by a thick layer of fat (fig. 2, *f*).

After the specimen had thus been examined in its fresh condition, it was hardened first in Mueller's fluid, and then in alcohol, for the purpose of making thin sections for subsequent microscopical studies. But, in order to obtain a fair view of the true relationship existing between the fibrinous clot and the diseased endocardium and myocardium, it was, by a clean cut, transversely divided into two

halves. The view of the upper half, thus obtained, is represented in fig 2. In examining this figure, the fibrinous clot (*a*), consisting of two distinct portions, will be observed deeply sunk into the muscular structure (*d*) of the ventricle. The latter presented a variegated appearance, caused by the difference of shade existing in the hypertrophied perimysium and the muscular structure, the former being represented by the lighter portion, and the latter by the darker. The deep fissure seen at (*c*) represents a portion of the right ventricle cut across. The dark line between the fibrinous clot and the myocardium represents a separation of the former from the latter in this place, produced, very probably, during the process of hardening the specimen. Below this dark line, representing the external border of the fibrinous clot, it will be observed that, in this place, the wall of the ventricle has very considerably lost in thickness by means of the pressure exerted upon this spot by the fibrinous clot, and, we may safely presume, that, if the patient had lived somewhat longer, the loss of muscular substance at this place would eventually have resulted in an aneurismal dilatation. The endocardium beyond the fibrinous clot (figs. 1 and 2, *b*)was also found thickened by chronic inflammation.

After these brief remarks, concerning the macroscopical examination of our specimen, we shall turn to the study of the more minute pathological changes, revealed by the microscopical examination of a number of thin transverse and vertical sections,taken from the inter-ventricular septum, and including portions of the clot (*a*) and the endocardium (*b*), which were triple stained with picrocarmine and hematoxylin. These studies we shall commence with the examination of figure 3, which represents a portion of the thin transverse section, magnified about 6 diameters, and including the margin of the fibrinous clot, the endocardium beneath and beyond the latter, and a part of the muscular structure invaded by the hyperplastic perimysium. The boundary of this section will be found marked upon figure 2 by a dotted line. In examining this figure, in

which, as in the former figures, the clot is likewise represented by (*a*), we observe the diseased and thickened endocardium (*b*) passing over into the hypertrophied perimysium (*c*). The latter is observed to have invaded the muscular bundles of the myocardium, which here appear in their transverse sections, and shaded much darker than the fibrous elements of the perimysium and the endocardium, on account of having absorbed more freely the carmine. By a closer examination we find these bundles divided into a number of minute fasciculi by light lines, representing the enlarged septa of their perimysium. It will be furthermore observed, that the nearer to the border of the endocardium, the smaller is the diameter of these muscular bundles and the broader the interspaces, representing the hyperplastic perimysium as well as the hyperplastic sheath of the blood vessels, by which they are separated. This is owing to the circumstance that the chronic inflammation giving rise to the hyperplastia of these fibrous structures, had extended into them from the endocardium, where it originated. The increase of the connective tissues, as well as the decrease, or atrophy, of the muscular elements, caused by the pressure of the former, therefore, must naturally be greater in the neighborhood of this membrane than further off. It is thus, that in the vicinity of the endocardium many of the muscular bundles have nearly disappeared. Nevertheless, if we again refer to figure 2, we observe that the hypertrophy of the connective tissues was, in this case, by no means confined to the neighborhnod of the endocardium, but had extended, and, as it appeared, mostly in the course of the blood vessels, throughout the whole of the ventricle.

Let us now consider the pathological changes of these structures, as they appear when examined under the microscrope with a higher amplification, commencing with those observed in the endocardium. In the normal condition, this membrane consists, like the intima of the blood vessels, to which it is analogous, of a thin layer of fibrillar connective tissue, covered on its ventricular surface by a

layer of epithelial, or endothelial cells. In the inflamed condition, however, the endocardium, like other fibrous membranes, becomes, according to the degree and duration of the inflammatory process, more or less thickened, not only by the multiplication of its connective tissue cells, but also by an increase of its fibrillar elements. In fact, the inflammatory process and its products, observed in this membrane, is identical with that of the intima of the larger blood vessels, known as endoarteritis. It is for this reason, that we meet in the case under consideration, representing an aneurism of the heart, with the same pathological changes as in an aneurism of the aorta or of any other larger artery. Accordingly, in that portion of the endocardium covered by the fibrinous clot, and in which the inflammatory process undoubtedly commenced, I observed the connective tissue cells not only increased in number, but moreover, to a lesser or greater extent, drawn out in the form of narrow spindles, as shown in figure 4. Many of these spindles have attained a great length, and no trace of a nucleus can be discovered within them. There are others, however, which appear to be formed by two, or more, smaller spindle-shaped cells, in which small traces of nuclei are observed; and, if it was not for the latter observation the nature of the former elements would be difficult to determine, having a great resemblance to unstriped muscular fibre cells. Besides a number of these spindle cells are met with containing several small nuclei, which I presume to have been formed by a successive division of the original nucleus of the connective tissue cell, while, at the same time, the protoplasm of the latter was drawn out into the form of a long and slender spindle. But there were a number of these connective tissue cells observed, which had retained their original round or oblong form; they were provided with a number of fine processes, which, apparently, communicated with one another throughout the fibrillar connective tissue of the membrane, thus forming a fine network. At the place where the fibrinous clot rested upon the endocardium, the

surface of the latter had undergone ulceration, induced by the fatty degeneration and disintegration of the connective tissue cells, especially the two last varieties, just described. By the death of these cells, and the neigboring fibrillar bundles, a number of cavities were formed at the surface of the membrane to be filled up by the fibrin of the blood, thus giving rise to the deposit of the other successive layers of fibrin, by which the clot was eventually formed. As the fibrin possesses the power of absorbing the staining material in a high degree, the fibrinous clot, together with the fibrin filling up the just mentioned cavities, appeared more intensely stained than the other tissues, as may be observed in figure 3.

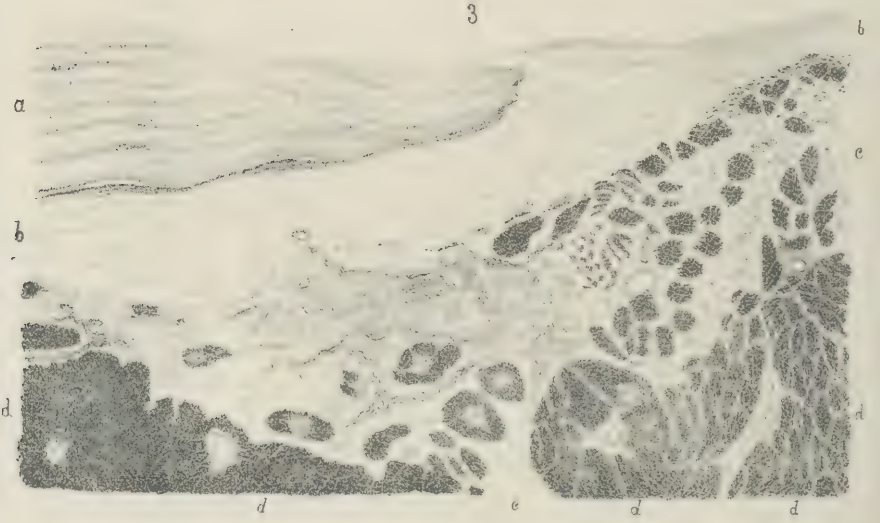
The endocardium beyond the fibrinous clot was also considerably thickened, though not as much as under the latter. The spindle-shaped cells, however, were here not so long, and less numerous than in the place just described; for most of the connective tissue-cells were multipolar in form, though also increased in number. The same multipolar cells, provided with very fine processes, were met with in the hyperplastic perimysium throughout the myocardium; they were lying between, and communicating with their processes around the primitive connective tissue bundles, as seen in figure 5, which represents a transverse section of a number of these bundles. The hyperplastic connective tissue of both, the endocardium and perimysium, consisted of bundles of very fine, slightly wavy fibrillæ, running strictly parallel to one another (figure 6). For the present, I pass over the particular modes by which these fibrillar bundles were probably formed and the bulk of the tissue increased, confining myself to the remark, that, as far as I was able to observe, they were not directly formed from the spindle-shaped, or other connective tissue cells. The large, compound bundles of the newly formed connective tissue in the perimysium were, in many places, observed to be held together by bundles of the old, normal connective tissue: these had, generally, remained unstained,

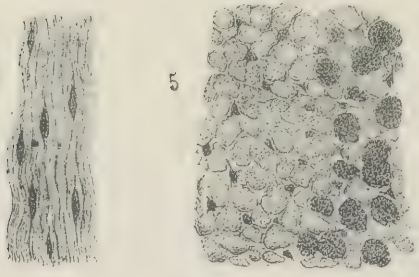
while the newly formed bundles had readily absorbed the carmine.

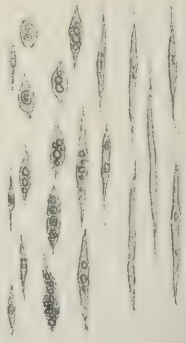
As regards the blood vessels of the myocardium, I may state that the larger ones were generally found open, as may be seen in figure 3, where they are represented, cut transversely, by the round open spaces. Many of them were surrounded by the neoplastic connective tissue, derived, very probably, from the tissue of their sheath, as well as from their adventitia. The minute arterioles, venules and capillaries, however, appeared to have decreased in number; many of them having become atrophied by the pressure of the neoplastic connective tissue elements; those still remaining were filled with blood corpuscles. The nutrition of the muscular fibres, however, being diminished, or in some cases even entirely arrested by the obliteration of many of these vessels, was followed by fatty degeneration of the muscular elements, though a portion of these fibres underwent atrophy, caused by the direct pressure of the hyperplastic perimysium.

In briefly reviewing the pathological changes, which the examination of the specimen—representing a portion of the left ventricle of the heart of Mr. —— revealed, it appears that the disease, to which the patient succumbed, commenced in the form of an endocarditis of the left ventricle, giving rise not only to thickening and ulceration of the endocardium, but, finally, also to the formation of an aneurismal fibrinous clot, and, moreover, to a chronic inflammation of the myocardium, accompanied by a hyperplasia of its connective tissues. Whether the endocarditis was acute in its nature, and commenced at the time, when Dr. D—— was first called to attend the patient (a view for which the accompanying fever of the attack would speak), or whether the inflammatory process had already previously existed and was only aggravated by the febrile attack, which might have been of malarial origin, is more difficult to determine. Chronic endocarditis is frequently preceded by rheumatism. The clinical history of this case says nothing of the patient having pre-









drawn on stone by the author

viously suffered from rheumatic attacks, though it is known that, for quite a number of years, he advertised and sold a specific medicine of his own make for the cure of rheumatism. For this reason I am inclined to believe, that the patient was subject, himself, to rheumatic attacks, and that the endocarditis was chronic in its nature from the beginning, and existed already at the time when the physician was first called, being only aggravated by an attack of malarial fever, which, as we know, was of short duration. In the same manner was the myocarditis, accompanied by a hyperplasia of the connective tissues of the myocardium, chronic in its form, the inflammatory process having, as already mentioned, extended from the endocardium to the muscular structure of the ventricle. The severe pain, which the patient experienced over the region of the heart, was most probably owing to the increased action of this organ during the febrile attack ; this pain, as will be remembered, afterwards accompanied every immoderate exercise, by which the heart's action was increased. The ultimate cause of death was very probably due to hyperplasia of the connective tissues, and to the fatty degeneration and atrophy of the muscular elements of the heart, which, eventually, rendered the organ, particularly the left ventricle, unable, to contract sufficiently, in order to perform the function of propelling the necessary quantity of blood, for the support of life, into the arteries.

EXPLANATION OF THE ILLUSTRATIONS.

Figure 1. Inner surface of the anterior wall of the left ventricle, showing the fibrinous aneurismal clot; *a*, fibrinous clot; *b*, endocardium; *c*, papillary muscle; *d*, myocardium.

Figure 2. Transverse section of the anterior wall of the left ventricle and of a portion of the interventricular septum, showing the thickness of the fibrinous clot;—*a*, fibrinous clot; *b*, endocardium; *c*, section of the papillary muscle, seen in figure 1; *d*, myocardium; *e*, portion of the cavity of the right ventricle. The dotted line on the right side of the figure indicates the boundary of the thin sections, taken from the interventricular septum to the right of this, a portion of which is represented by figure 3.

Figure 3. Represents a portion of the thin section, just mentioned, as it appears, when viewed with transmitted light, and magnified about '6

diameters; *a*, fibrinous clot; *b*. thickened endocardium; *c*, hyperplastic perimysium and sheath of the blood vessel: the round, empty spaces represent the lumen of the latter: *d*, muscular bundles of the myocardium, cut transversely.

Figure 4. Small portion of a section of the hyperplastic endocardium, showing the transfiguration of the connective tissue-cells.

Figure 5. Minute portion of a section of the myocardium, showing the fibrillar bundles of the hyperplastic perimysium in their transverse section, and the multipolar connective tissue-cells between them.

Figure 6. Minute portion of the hyperplastic perimysium, showing its fibrillar bundles with the connective tissue-cells running parallel to one another.

Adulteration of Drugs and Why a Pharmacy Law is Needed.

By Ferdinand Lascar, Ph. D.

[Read before the Orleans Parish Medical Society, July 39th, 1883.]

In the *Pharmaceutische Rundschau*, I find a short article, by Prof. Hoffman, upon the results of the investigations of several drugs, as conducted by the four lately appointed Sanitary Inspectors for the State of New York.

These officers, who were appointed to detect adulteration of drugs and articles of food, have, so far, only investigated a limited number of drugs, but experienced pharmacists could supply, *ad infinitum*, instances in which adulterated, inert and even deleterious drugs have been put on the market.

If in relating several cases which have come under my personal observation, and if in pointing out the remedy to guard against imposition and fraud, I have helped to bring about discussion, and have started an agitation favorable to the advancement of pharmacy, I shall consider myself amply rewarded.

Several years ago a sample of apparently good looking aconite root was given me for investigation. I prepared the officinal tincture from it and found it greatly lacking in strength. Fifteen minim doses failed to produce any marked numbness of the tongue, and only a slight burning sensation in the œsophagus, the depressant action on the heart being

much less effective than that produced by 2 to 4 minim doses of a good tincture.

Further investigation showed an adulteration of over fifty per cent. with taraxacum root. Aconite is one of the drugs in which uniformity of strength is a matter of the greatest importance. The effect of opium and belladonna are generally more closely watched by the attending physician than aconite. A good specimen of aconite very seldom fails where its use is indicated, it never fails as a powerful depressant of the heart.

Still more important than with tincture of aconite should be the uniformity in strength of the alkaloid aconitia. As it is now, the dose varies greatly: while the dose of Morson's aconitia is only 1-1000 of a grain; the one prepared by Mialhé, Paris, is somewhat weaker, the ordinary American and German varies greatly. I have had aconitia of which 1-25 grain could be considered a dose.

As ignorance is only too often found in the dispenser of drugs in those localities in which legislation has failed to throw a safeguard around the dispensing of drugs, and where only too often cupidity and neglect endanger life and health, it behooves the medical practitioner, if he believes in therapeutics at all, to increase his knowledge of pharmacology.

Frequently, cases come under my observation where physicians speak to me about certain drugs being almost inert, which in my judgment are of the highest value as therapeutical agents.

Some time ago I was told by an able practitioner that he invariably failed with apocynum cannabinum in dropsical affections, and that it was of not much account as a hydragogue. He claimed that the tincture in sixty minim doses, and fluid extract in as high as thirty minim doses had failed to act, or had, when given, produced emesis. I then prepared a tincture and a fluid extract of good fresh dried root, not using the root in its fresh state, when they are even more powerful. He has since used the preparation time and again with the most happy results, and is now

convinced of this drug's never failing specific property. It is only the conscientious pharmacist, and the—in his profession—educated one, who can, in such cases, be relied upon, who knows if the drug he dispenses is of good quality, and who is trained to detect the adulteration in drugs and chemical preparation, which are unfortunately only too common nowadays. Gentlemen! how often has not ergot and the still more important ergotine failed in your hands in cases where its use was clearly indicated.

Now I have had ergot of rye sent me, not once, but dozens of times, which I found to be totally valueless, and which I returned to the seller. In the fall of 1879, I examined four sacks of ergot then imported from Germany, which I found to be mouldy, ill smelling and, in fine, unfit for use. They were afterwards sold and the four hundred or five hundred pounds certainly found their way to some drug shops, where it was dispensed, and then probably the doctor wondered why the infusion or fluid extract he prescribed did not have the desired effect. Such an important drug as ergot should only be selected and dispensed by skilled hands, and the pharmacist who really is one, generally submits the ergot and ergotine to the severest scrutiny when he lays in his stock.

At another time a large house bought from a drug firm a considerable quantity of powdered ergot; it was a lot of about one hundred pounds, and when submitted to me I pronouced it unfit for use. My judgment was nevertheless overruled and fluid extract made from it. The product was so unlike what a good fluid extract of ergot should be, that the house at once concluded to let the whole lot run to waste. But how many other houses would have done so? How well some practitioners understand the difficulty of obtaining a good ergot may be seen when I mention that formerly Dr. Marion Sims frequently came to me, and personally selected ergot, which I treated with ether for him, extracting all the fatty matter, and from such treated ergot he had infusions made.

In obstetric practice, where ergot and chloroform are so

frequently used, only the absolutely pure drugs should be dispensed. The chloroform, also, is only too often not the pure product, but the poor, ignorant dispensers who seldom know the difference, frequently dispense impure chloroform for inhalation.

How careful some practitioners are with chloroform may be seen in the fact that Liebreich only uses chloral chloroform, made by decomposition of chloralhydrate, and others, like Alex. B. Mott and J. M. Carnochan, mostly use the Scotch chloroform, or Methyl chloroform, for which is claimed a minimum action on the heart. Of course these special preparations of chloroform are a little more expensive than those in common use, but cheap John is not always the best factor to deal with in medicine.

Wilful adulterations of drugs are daily met with, and there are establishments which make this a branch of trade. The skilful and scientific Pharmacist is seldom imposed upon, but the ignorant and unscrupulous one, and through him ailing humanity at large, are the consumers of the products of such establishments.

Dr. Squibbs, of Brooklyn, New York, found the cream of tartar offered for sale to vary greatly in purity. Samples examined by him contained all the way from 10 to 92 per cent. of pure cream of tartar. The adulteration was found to be tartrate of lime and terra alba, and I have found in a cream of tartar analysed by me, beside 8 per cent. tartrate of lime, 10 per cent, plaster of Paris.

Cinchona bark is another drug which is continually adulterated. The desire to obtain cheap drugs has brought barks into commerce, which contain very little true bark at all. The truth is that the best barks very seldom find their way to the American market, and barks are sold which contain very little cinchona at all.

Wholesale houses have daily calls from so-called druggists for barks at ridiculous low prices, such as 30 or 35 cents a pound and supply such, while a good bark sells at 5 or 6 times the price. The apothecary who is conscientious and painstaking pays as high as $2 00 and more a

pound for the bark he dispenses: but the former is only one of the many instances of cupidity which the medical profession should help to stamp out.

The pharmacist should be competent to make an assay of bark, to determine the amount of quinia alkaloids and quinia contained therein. The new pharmacopoeia is satisfied with 2 per cent. of quinia in cinchona flava. I prefer and dispense a bark which according to Squibb's assay contains 4-10 of quinia.

I have assayed commercial barks which barely contained ½ per cent. quinia, and were a conglomeration of all kinds of strange products with cinchona.

In Europe, where cinchona bark is often prescribed, either in infusion or in powder as a febrifuge, good bark is generally met with, and why? Simply because the Government with a firm hand has regulated pharmacy, and forces the pharmaceutist to acquire a pharmaceutical education, imposing heavy fines upon the individual who is found, either through his ignorance or through his cupidity, to dispense worthless or deteriorated drugs to ailing humanity.

An academical education and knowledge of practical pharmacy, pharmacology, practical and analytical chemistry, toxicology and kindred sciences is insisted upon before allowing the pharmacist to dispense prescriptions.

Now, we have colleges of pharmacy in the United States, some very good ones and some rather poor ones. The medical profession ought, in view of the exalted position it holds, and its duty to the public at large, to force the pharmaceutist to acquire such knowledge and ability as is necessary for the responsible position he holds.

This can only be done by proper legislation, and the medical profession which possesses one of the finest medical colleges right here at home, from which have been graduated so many, who later became an honor and pride to the profession of the whole country, should use all its powerful influence to obtain proper laws for the regulation of pharmacy in this State.

Most States in the Union have passed such laws, and

created such Boards of Pharmacy, and insist upon having only examined and registered pharmacists. In Washington, D. C., the Police Department, on the 13th April last, received warrants for the arrest of fourteen druggists, for the violation of the pharmacy act, in employing clerks who were not registered pharmacists or assistants. Why the most important of Southern States, which rightfully boasts of its academical institutions and its civilization, should be the last to pass a stringent pharmacy act, I cannot comprehend. How far the adulterations of drugs is carried is plain from the report of Dr. F. Hoffman, for many years a prominent druggist in New York, and at present one of the lately appointed inspectors and examiners of drugs and foods for the State of New York.

Four samples of quinine were analysed and one found adulterated; nine of powdered rhubarb and four adulterated; seven of ipecac and four adulterated; four of jalap and one adulterated; six of mustard and four adulterated; thirteen of lac sulphur and SEVEN adulterated. The report is an interesting one in regard to the adulterations found in articles of food. The first conviction under the new act was obtained on the 7th of last February, on a druggist who dispensed lac sulphur containing 30 per cent. plaster Paris Nothing seems to enjoy exemption from adulteration, and the most important drugs are attacked. As far back as eleven or twelve years ago, a prominent manufacturing concern was shown to have manufactured quinine pills with about 20 per cent. less quinine than a confiding public expected the same to contain. When the fraud finally came to light their lame excuse was, that the medical profession and public wanted low priced goods, and they consequently put in their pills what they called hospital quinine, which contained 20 or 25 per cent. of other quinia alkaloids. Call it hospital quinine, beta-quinine or conchinine—I call this sharp practice.

The abuse of manufactured pills is a great one in many cases: not only does it leave the door open to fraud, but it helps to lower the pharmacist to a mere tradesman. Many

of the manufacturers of sugar-coated pills put talc and terra alba in the coating, ingredients which largely augment the weight, but are far from being desirable adjuncts to pills of any kind.

I have found sugar-coated pills (made by a high-toned concern, which is known to flood the market with drugs of which the Fiji Islander and the average Cannibal know more than our professors of materia medica) to be insoluble in both boiling and cold water. I have kept some of the pills for fourteen days in water and the pills have remained intact, hard and undissolved.

The only manufactured sugar-coated pills, the so-called dragees and granules, which I have found perfectly soluble, are the ones manufactured by the old firm of Garnier Lamoureau & Co., of Paris, and which have received the endorsements of Prof. E. L. Keyes, and others.

In concluding my remarks, I will add that by elevating pharmacy in our community, we will weed out the mushroom pharmacists who to-day commence their career as Esculapians, and who, after one or two years practice at washing bottles, consider themselves wiser than the whole medical faculty. By creating a strong and unapproachable Examining Board of Pharmacy, you will be benefited not only in your own daily practice, but confer a boon on ailing humanity at large. Let the motto be "Down with adulterations of any kind, whether they be in drugs or in articles of food." Let the vendor of such stuff, claiming ignorance, be dealt with according to the fullest extent of the law, not a fine of a few dollars, but the *penitentiary:* for he is more guilty than the common murderer who does his work quickly.

We have inspectors of meat who confiscate unwholesome flesh, then why not have drug inspectors to detect worthless drugs? I have heard it argued that such a course could well be followed in Europe, but would be out of place here in a free country. My answer is simply this: That this is a free country to do right but not to do wrong, and as the ignorant and rapacious understand this, so much the

better will it be for the commonwealth and for ailing humanity, the sooner we suppress these pernicious individuals.

Abscess of Spleen. (?)

By OSCAR CZARNOWSKI, M. D.

[Reported to the New Orleans Medical and Surgical Society.]

On May 29th I was called to see A. E., white well-developed male child, aet. seven years, of German parentage, and was given the following history: Child had during the past three months been living in Covington, La., where it had several attacks of intermittent fever, which had been treated with quinine; that the child had been complaining for more that six or eight weeks of severe pain in the region of the stomach, and that the recurrence of these pains had taken place regularly every forenoon, continued for some three or four hours, during which time the child would lie on its abdomen, face downward, and would refuse to take any other posture. At a later visit, I learned, that some three months before it had fallen out of a swing and then, and for several successive days, it had rested in the same posture and had suffered much pain, but that this trouble had yielded to the application of poultices and laudanum.

On the 27th May, two days preceding my visit, the child had been taken from Covington, apparently in good health, aboard a schooner, where it had passed the night asleep on deck, and in the morning is said to have had a very high fever, and to have been delirious all that day.

On the morning of 29th I found it in the following condition and presenting such symptoms as I shall describe: Found the child at stool and upon trying to put it abed it resisted all attempts with all its power, gasping and crying that it would suffocate. The whole surface of its body was cyanosed and œdematous, its feet, legs, hands, face and scrotum enormously swollen, and all parts of the body pitting upon pressure. Number of respirations, after

repeated countings, was 110. Pulse could not be felt. The heart sounds were scarcely audible and so muffled by the rapid respirations as to render it impossible to count them. The temperature, which was taken in the axilla, was sub-normal, 97 F. ; child was restless and tossing about and could not be induced to lie down : would get out of bed and back twice or thrice every minute. Found a large, hard tumor in the left side of abdomen, occupying the left hypochondriac and lumbar regions and extending to and over the middle line, say one inch to right of umbilicus. Could not isolate tumor, and child resisted examination on account of increase of pain upon lightest pressure.

Was informed that the child had been in this condition for the past twelve hours, and that for forty-eight hours past it had not taken any nourishment, or in fact anything. Ordered an enema of whiskey, carbonate of ammonia, and administered the same also by mouth.

Eight hours later, found condition unchanged, ordered ten grains of quinine every six hours. Compound iodine ointment to tumor. During the next forty-eight hours there was no change in the child's condition. Stools frequent, and very offensive, as many as six or eight occurring during twenty-four hours ; child sitting on chamber for an hour or two at the time, saying this was its most comfortable position.

June 2d, œdema has entirely disappeared : respirations 92-104, temperature 97 ; takes forty grains quinine every twenty-four hours ; has no symptoms referable to it. Child takes what sleep it gets, sitting at the edge of bed, its feet in a box placed on a chair to prevent its falling. Will not submit to being propped by pillows or held by either of its parents.

Says it cannot lie down, knows it will choke if it does. Says it is very hungry, but cannot take the time to swallow, fears it will choke.

June 4th takes ice cream, milk punch : quinine, syrup iod. iron, fifteen drops every four hours : discontinue carb. ammon. which had been administered every six hours up

to now. Pulse 88, temperature 103. Tumor very painful and very prominent: fluctuation can be felt—seated deep from the surface; respiration 72.

June 8th called hurriedly: child had fainted—so said—several times, supposed by parents to be dying. Had two large stools whereby from one to one and a half pints of good pus and some blood have been voided. Tumor less painful, considerably diminished in size. Found child sleeping quietly; respiration 60, pulse 80, temperature 103. Quinine in five grain doses and syrup iod. iron are continued for two weeks, during which time there was marked improvement from day to day. There continued a discharge of pus and blood for a week or more, during which time the child, with voracious appetite, made up for lost time and went into complete convalescence.

Three Cases of Leprous Disease of the Eye.*

BY HENRY DICKSON BRUNS, M. D., New Orleans.

The following cases of leprous disease of the eye having come under my notice at the charity hospital, eye and ear clinic, I have seen fit to report them, as in this country opportunities for observing such cases are rare.

Case No. 1. William B. applied at clinic May 17th, 1883. Native of Germany; aged 48; laborer. Says his general health is good. Patient states that about a week ago he had an attack of erysipelas of the face and head. Was attended by a physician, who ordered a cooling application. Some of this wash got into his right eye, and when he recovered from the erysipelas he found himself blind of this eye, and that it was red and sore.

Present condition: Right Eye Vision—light perception.

Left eye $\frac{20}{XL}$. Right eye: The lids are somewhat reddened and swollen; the whole eye much injected; lachrymation; some photophobia. All save a narrow peripheral

* The general histories of these cases form part of a large series of cases of leprosy collected by my friend Dr. I. H. Bemiss and myself. The histories here given are taken almost without alteration from the history books of the eye clinic.

strip of the cornea is occupied by a dense, white, lead deposit. Diagnosis: Leucoma saturni.*

This is the last note of the clinical history: June 12. Since some days a slow suppurative process has set in at that part of the cornea which is discolored by the precipitate, making the corneal tissue very brittle.

This case is interesting in showing that the attacks of facial erysipelas to which lepers are prone may be attended by a corneal inflammation; for, though I have never seen an eye under these conditions, a degree of keratitis must have have been present, as the metallic salts are not deposited upon a cornea protected by its normal epithelium. The low ebb to which nutrition is reduced in leprosy was also well exemplified by the behavior of this cornea, which instead of tolerating the metallic deposit as an unobnoxious foreign body, crumbled into a friable mass, which could be scraped away for almost one-half the thickness of the cornea without producing the least pain. Lastly, such a mishap should teach us never to use a metallic salt about an inflamed eye unless we are perfectly confident of our power to recognize a keratitis.

Case No. 2. D. N., German; aged 54; mechanic. Applied March 19th, 1883. General health poor; has had erysipelas. He says that at times right eye has given him some little trouble. "Five years ago left eye began to run" and to hurt him and has continued to do so up to date. Was under the treatment of an oculist, who "cut open something on the lower lid" (performed Bowman's operation) and used the lachrymal probe, but without benefit.

Present condition. Presents the reddening and thickening of skin of face and ears, and indeed, all the symptoms characteristic of leprosy. Right eye vision $\frac{20}{70}$, left eye $\frac{20}{C}$. Right eye; nothing abnormal on inspection. Left eye; on everting lower lid it can be seen that the canaliculus has been slit up in a vain attempt to relieve the

* By Dr. O. R. Lanng, under whose care the case was, and by whose kindness I am now permitted to publish these notes.

lachrymation of which he complains. This symptom is probably aggravated by a severe nasal catarrh from which he has suffered since last Christmas. Palpebral conjunctiva thick and red. Bulbar conjunctiva strongly, deeply, and coarsely injected. Cornea quite clear. At lowest point of limbus, however, there is a small (one-eighth in. × one-sixteenth in.), white, irregularly shaped lump, looking not unlike a particle of *blanc mange*. Pupil about medium size; responds slowly to light. This iris is darker than the other, which is bluish gray. On upper margin of pupil is a small, orange yellow tubercle resembling a syphilitic gumma. Diagnosis: Leprous tubercles of cornea and iris; ectropion of lower lid; left eye. March 20. Noted to-day that it is impossible to close left eye, owing to a partial paralysis of the orbicularis. No change in condition of eye. Pupil is not dilated by atropia, and there is a synechia from tumor itself.

March 29. Injection much less. Pupilslightly dilated; evidently adherent at many points. Color of tubercle has faded from its former orange yellow to a light flesh color. Since the 25th inst. has had atropia (gr. viij to aq. ℥j) put in eye several times a day. The tumor of the cornea has disappeared.

April —. No change in condition of the eye.

May 30. Note by Mr. Chas. Seeman, resident student in charge of the department: Was informed that the patient died this day, the cause of death having been pronounced erysipelas by the physician in attendance, but cannot vouch for the statement.

Case No. 3. J. W. Applied April 30, 1883. German, aged 45, laborer. Has leprosy. Left eye has been sore for five days; disease came on suddenly during the night. Eye a little tender on pressure.

Present condition: Left eye.—Bulbar conjunctiva most intensely injected, deeply and superficially. White line around cornea. Cornea clear. Iris discolored: dark greenish color instead of blue, as in the healthy eye. Pupil

small and immovable. Ordered atropia, gr. viij to aq. ℥j, a drop in eye every hour.

May 14. Injection a good deal less, but cornea diffusely cloudy. Pupil still small and immovable.

May 16. Left eye: Injection somewhat less; pupil slightly dilated. Right eye: Slight injection. Tender on pressure. Pupil contracted. Atropia in both eyes.

May 25. Both eyes very much injected. Pupils firmly bound down and undilated, although atropia has been used three times a day.

May 28. Right eye: Injection still very well pronounced. Left eye: Injection less. Both pupils remain firmly bound down.

May 30. Both pupils slightly dilated. Injection very much less.

June 1. Pupil dilated about one-third the maximum. Injection much decreased. Right eye: Pupil immovable; injection pretty severe.

June 22. Injection has all disappeared, but both pupils are bound down by firm posterior synechiæ.

The last two cases are characterized by one well marked feature—their utter intractability. In case No. 2 an eight grain to the ounce solution of atropia was used as often as once every two hours, yet the pupil was scarcely dilated, and this, nothwithstanding the fact that the powerful adjuvant, free bathing of the eye with hot water before the instillation of the drug, was employed. By referring to the notes of case No. 3 it will be seen that the pupils did not budge until one month after the patient was first seen, and that even then the highest degree of dilatation obtained (in left eye) was only one-third of the maximum, yet we had the advantage of treating the right eye from the very beginning of the attack. Owing to the indifference of the patient, however, the atropia drops (gr. viij to aq. ℥j) were only instilled three times a day, instead of every hour as ordered, and I very much doubt if the hot water

was employed at all. I did not venture to try the effects of mercury in these cases, owing to its pernicious influence in leprosy. Case No. 2 did not complain much of pain. Case No. 3 suffered a great deal, especially at night, and opiates were freely given.

TRANSLATIONS.

AN ÆTHEROMANIAC.

By Dr. Sedan.

(*Gazette des Hopitaux.*)

In medical publications, we not infrequently find related curious observations on the peculiarities of the morphine habit, alcoholism, and other toxic addictions; the following case, we venture to predict, will rank among the most curious of these.

The subject of this observation was a young boy about ten years of age, when I was first called to see him. He had the peculiarly pale face of anæmia, a blowing (inorganic?) systolic murmur, but was, otherwise, in a satisfactory state of health. He was a precociously intelligent youth, endowed with a lively and even brilliant imagination for his years. He was assiduous in his studies, and labored with success, as sufficiently attested by the high appreciation in which he was held by his teachers and classmates, at the Lyceum which he attended. When I enquired into his troubles, he confidentially told me that he "drank ether," and that he had found in its use the secret of his mental vigor. He reasoned with me like a man and promised to restrict the use of the drug to those special occasions in which his mental powers could be called upon to perform some extra labor. However, he did not keep his promise but, on the contrary, progressively increased the dose of the toxic agent until he took 20, 30, 50, 80 and 100 grams (from half an ounce to over 3 ounces) of ether during the day, repeating an equal quantity by inhalation during the night. He did not appear to care for food or drink, but lived continually plunged in the exhilarating vapor of the ether, which he would leave only to study and solve the most difficult problems in the higher mathematics.

He would frequently get up at night, ring at the doors of the local pharmacists to procure some ether, and was even driven to pilfering his parents in order to satisfy his craving for the indispensable drug. In vain did I appeal to the superior knowledge and experience of my eminent colleagues, Professors Nogués and Ripoll (of Toulouse); in vain did we apply all the strength of our professional influence and persuasive demonstration of his wrong doing,—though he was convinced, though he knew he was wrong, he could not be made to control his longing impulses.

We then endeavored to suppress his habit by keeping the drug from him—in this we also failed: in spite of the closest surveillance he succeeded in eluding our vigilance, and, in fact, succeeded so well that he inhaled and drank one day, when he was being watched most closely, 900 grams (over 19 ounces) of the stuff. I have been told (and I hardly doubt it) that he finished 1 litre (2.113 pints) in one day. It is a fact, anyway, that for nine years this puny and physically weak child absorbed, both by inhalation and ingestion, quantities of ether which varied from 100 to 1000 grams, without experiencing any accident immediately traceable to its effects, the boy dying two years after my first visit, from the effects of a mitral insufficiency which had long existed and had been gradually evolved.

This case is certainly remarkable on account of the unusual agent selected for intoxication, on account of the large quantities taken, and also, the youthfulness and sympathetic peculiarities of the victim: I must add to the preceding details that in the last year of his life the boy acquired the morphine habit, which he indulged with the aid of a hypodermic syringe.

I never noticed any delirium, and in my endeavors to suppress his peculiar and deadly proclivities, I exhausted all the advised and imaginable means at my command.

R. M.

A POMATUM POT EXTRACTED FROM THE RECTUM.

By Major Maurice Pollosson,

Surgeon, French Army, at the Hotel Dieu de Lyon.

The following extraordinary case is reproduced by the *Gazette des Hopitaux* from the *Lyon Medical*:

On the 16th of August, 1883, an old man sixty-two years of age applied for treatment at the out-door clinic of the

Hotel Dieu, complaining of diarrhœa and pains in the fundament. I immediately proceeded to examine this region.

I observed that the anus, partially everted, and situated at the bottom of a deeply excavated or infundibuliform perineum, was smeared with the trickling ooze of liquid fœces. Fearing the existence of a cancer of the rectum, I made a digital exploration. My surprise was indescribable, however, when, instead of the irregular and anfractuous surface of a neoplastic formation, I felt a rounded, even, and polished surface as I swept my finger around the interior of what appeared to be the bottom of a glass goblet.

Either through natural or simulated stupidity, the patient refused, at the time of and after the examination, to give any clear or precise information in regard to the history of his peculiar condition or upon the manner in which the foreign body was introduced, the configuration of which he would not even describe. He would only answer to all our questions by stating that he had been suffering with pain in his anus and that in endeavoring to relieve his distress by pressure, he had forced this foreign body into his bowel. "The accident" had occurred about fifteen days prior to admission. During all this time he had suffered greatly and lost some blood: his wife believed him to be suffering from piles. Thin fœcal discharges continually soiled his clothes. He had consulted some medical men, but as they never examined him directly, they treated him for something else and administered medicine internally.

I immediately placed the patient upon the operating table and endeavored to extract what I supposed was a large glass. After a great deal of trouble, I succeeded, with the assistance of Mr. Murrer, in dislodging the foreign body. A slight hemorrhage followed my manipulations, which accomplished their purpose without any notable laceration of the mucous membrane. A large bolus of fœcal matter followed immediately after the removal of the extraneous body.

The latter was a pomatum pot, cylindrical in shape, about six centimeters in length and about three centimeters in its transverse diameter.

The patient was immediately relieved by the extraction of this body and was discharged from the hospital about thirty-six hours after his admission.

The number of reported cases of foreign bodies of this

kind, in the rectum, is sufficiently meagre to justify the addition of this case to the published list. All authors agree in the statement that the extraction of such bodies is difficult and sometimes dangerous. In this case the manœuvers for relief were easily executed, as they did not even require the assistance of an anæsthetic. If the resistance of the sphincter and other structures had been prolonged, I could have etherized the patient. If after the administration of the anæsthetic the efforts at relief had proved unavailing, in preference to breaking up the glass and risking a brutal laceration of the rectal mucous membrane, I would have made an incision from the anus to the coccyx, or, in other words, a linear rectotomy, which no doubt would easily have given exit to the imprisoned vessel. R. M.

TREATMENT OF PERTUSSIS.

By Dr. Roger.

(*Journal de Medicine et Chirurgie Prat.*)

In his recently published treatise upon the diseases of children, Dr. Roger recommends the following treatment for this obstinate, dangerous and always troublesome affection.

He prescribes in the second stage of the disease, in which the neurotic phenomena (whoop, etc.) predominate, this formula: ℞ syrupi belladonnæ ℥jj : syrupi valerianæ et syrupi digitalis, *aa* ℥i, M. The dose of this mixture varies according to the intensity of the symptoms and age of the patient: from one to six teaspoonfuls of this combination can be given daily. In treating children under two years of age, M. Roger begins by half a teaspoonful, daily, increasing the dose one-half teaspoonful more every second day until two teaspoonfuls are taken during the twenty-four hours. (It must be borne in mind that every teaspoonful of the syrup of belladonna (F. codex) is equivalent to about five miligrams of the alcoholic extract of belladonna, or gr. 1-13.) For children between two and five years of age, one teaspoonful is sufficient the first day, gradually increasing to four and even six teaspoonfuls, daily, in older subjects. These are about the maximal doses that prudence would counsel in ordinary cases. Whenever spasmodic paroxysms rebelliously persist, then

the mixture may be pushed gradually until the full physiological effects are obtained.

This mixture is usually well taken by children, though it can be easily improved, in case of opposition, by cloaking its taste with syrup of violets, orange flower, sweetened water or milk, etc.

In case we wish to give smaller quantities of the medicine without diminishing its strength and efficacy, the following combination will prove useful: ℞ Tinct. belladonnæ ʒjj, tinct. valerianæ et tinct. digitalis, *aa* ʒi. M. In dealing with infants below two years of age, we can begin by administering five drops of the mixture once daily, five more drops to be added progressively every second day, until the maximum dose, thirty drops, daily, is gradually reached. In children from two to five years of age, ten, gradually increased to sixty drops, can be given *per diem*. Finally, in still older patients the dose may be augmented by fifteen to ninety drops daily, fifteen drops being added to the last dose every second day. Among the anti-spasmodics which M. Roger has found valuable as a substitute for valerian is the tincture of musc. It may be given in this way: ℞ tr. belladonnæ ʒjj; tr. digitalis et tr. moschi, *aa* ʒi M. S., to be administered as in the preceding mixtures.

In very violent or hyper-pertussic cases, the nervous or spasmodic symptoms which predominate are best combatted, according to M. Roger, by the administration (*per orem*) of chloroform. He has had considerable experience with this remedy in the '*Hopital des Enfants Malades*,' and has had occasion to congratulate himself upon its beneficent effects in many serious cases. Sometimes, from the very incipiency of the diseases in children from two to five years of age, he administered from six to thirty (30) drops of chloroform suspended in two ounces of mucilage or syrup of acacia.

[We have had a fair opportunity to test the value of Dr. Roger's mixtures in the present epidemic of whooping cough in our city. We hardly think that it very materially abreviates the cure of the disease, as, by itself, the simple combination of belladonna, digitalis and valerian (or musc), is but a very weak palliative of the symptoms of this formidable complaint. In conjunction with other agents, especially quinia and good hygiene, it has undoubtedly proved a valuable means of allaying the violence of the paroxysms. The following mixture has given us,

after extended trial, as fair a result as we might expect in the present unsatisfactory therapeusis of this disease: R ammonii vel potassii bromidi ʒj: Ext. lippiæ mex. fl. gtt. 30: syr. belladonnæ ʒj: syr. digitalis et valerianne *aa* ʒiij: aquæ lauro cerasi qs. ad. ʒiij: M. S. a half teaspoonful to one teaspoonful daily, gradually increased. One grain of quinia muriate, in black coffee, twice or three times daily is a valuable and almost indispensable adjunct in all stages of the disease.—TRANSLATOR.] R. M.

M. BECHAMP AND KOCH'S BACILLUS.

(From Transactions of French Academy reported in *Gazette des Hospitaux*).

At the meeting of the French Academy held September 4th, M. Bouchardat read an interesting paper upon tuberculosis, in which he sustained the opinion, among others, that the parasite of this disease (the existence of which he admits) is not always of extraneous origin, but more often develops from within as a result of organic transformations (spontaneous generation?) The opportunity was a favorable one for M. Bechamp, and he was not slow in availing himself of it. He briefly recalled the peculiarities of his researches on this subject and objected to the statement made by Mr. Bouchardat to the effect that Koch was the discoverer of the tuberculous parasite. Koch had not made the discovery, he (Bechamp) had studied and described the so-called bacillus of Koch, long before this observer had begun his researches. Rejecting the word "*parasite*" as it is now improperly used, he contested vigorously for the historic priority of his discovery. "It is a well-known fact," said M. Bechamp, "that M. Estor and myself communicated to the Academy of Sciences, the results of our researches on the microzymes of pulmonary tuberculosis, in which we demonstrated that these bodies were primordially contained within the tubercles, and by cultivation they could be evolved into aggregated microzymes and bacteria. It was then one of the earliest applications of the microzymatous (germ?) theory to disease.

As to the origin of that which is called the parasite in the new doctrines, M. Bechamp has views which are well known. The element which engenders the bacteria of all disease, under the influences which nosologists have specified, is not a parasite: it is an essential histological element, which is a component of our tissues *ab ovo*: it is

the constructive agent in tissue formation; it is the inciter of the chemical changes that are being continually effected within us; in a word, it is our fermentative principle,—the microzyme."

We san say "that there is no parasite that is produced within our tissues or which invades our organs from without to develop typhoid fever, cholera, etc. There are different mycrozymes (ferments) which are present in the various organizing centres (?) and whose morbid evolution produces different forms of disease, but whether before or after their evolution, it is unreasonable to call them parasites.

M. Bechamp proposes to continue the discussion of his theories and observations at some future meeting of the Academy. R. M.

THE VISIBLE CAPILLARY PULSE.

The capillary pulse was first described by Quincke in 1868, when he observed the phenomenon as existing in the sub-ungual tissues of the hand. Boeker especially noticed this condition and renewed attention to it in his paper on the retinal circulation (1871); the symptom was particularly marked in cases of aortic insufficiency and Basedow's disease. Though the existence and peculiarities of the retinian pulse have been well studied by opthalmologists, the same cannot be said of the sub-ungual pulse; in France, at least, but one observation has been recorded, and that is the one published by M. Tripat, in the *Bulletin de la Societe Anatomique* (1873). This so-called pulse is thus described: "Synchronously with the arterial diastole, the nails of the hands become flushed with a dark red color, which appears only for an instant, to disappear again with equal rapidity, finally to give way to the anæmic paleness of the matrix during the arterial systole; it appears like a cloud or wave of blood passing rapidly over the nail. The symtomatic value of this sign has not been fully studied, it is really obscure and difficult of explanation; according to M. Ruault (*France Medicale*), it is certainly rarer than the *induced* capillary pulse, which is frequently produced without any preliminary manœuvre. In searching for the capillary pulse, the observer should carry slowly the finger nails over the forehead of the patient; if the streak produced by vaso-motor dilatation remains fixed for a few minutes over a line of 20

or 30 centimetres in length, the pulsation of the dilated capillar becomes visible in certain subjects, provided the head remains perfectly still and is placed in a proper light. M. Rualt has never found this sign in healthy individuals, but has clearly noticed it in the following conditions: Chlorosis, plumbism, and aortic insufficiency, in which disease it is most perfectly manifested.—*Gazette Medicale de Nantes*, September 9th, 1883. R. M.

REFLEX DILATATION OF THE PUPILS A SYMPTOM IN SOME AFFECTIONS OF THE BRAIN AND MENINGES.

(Translated by P. E. Archinard, M. D., *Gazette des Hopitaux*.)

Professor Parrot shortly before his death made the following discovery, referred to by Dr. Landouzy in his lectures on general tuberculosis. In young children affected with certain diseases of the brain and its coverings, giving rise to coma with or without convulsions, and accompanied by pupillary contraction, stimulation, as by pinching, of the skin of the epigastrium during the stage of coma, produces a more or less marked dilatation of the pupils. In other cases, also characterized by coma, but without convulsions, no amount of cutaneous excitation can induce this phenomenon.

The diseases in which this sign is present are marked by normal or increased cutaneous excitability; they are the following, demonstrated by a number of examinations made on the cadaver: tubercular meningitis, hemorrhages underneath the pia-mater, some cases of chronic hydrocephalus and a few cases in which no appreciable anatomical lesions were found. All this group is characterized by compression of the cranial contents.

The cases in which this dilatation is absent present cutaneous anæthesia and a non-compression of the encephalon, as evidenced by depression of the fontanelles. The most important of these are: œdema of the pia-mater, congestion of the nervous mass and of the meninges.

Now, physiologists assign two sets of causes for the motion of the iris. The first purely nervous: contraction of the pupils due to the circular fibres of the irides supplied by the 3d pair of nerves, dilatation caused by the radiating fibres of these muscles controlled by the sympathetic. The second cause is vascular; an increase of blood to the irides giving rise to contraction and a diminution to dilata-

tion of the pupils. Professor Parrot thought the phenomenon observed by him must be due to vascular action, and explained it in this way: the stimulus produced by pinching the skin is transmitted by the afferent nerves to the centres in the medulla and there reflected to the vaso-constrictor of the irides, thus causing a diminution in the calibre of the vessels of these muscles, a diminished supply of blood, and hence pupillary dilatations. The only practical deductions from the above so far are: that children affected with coma with or without convulsions, in which the pupils do not dilate on repeated cutaneous stimulation, do not suffer from tubercular meningitis nor from hemorrage of the pia-mater.

Current Medical Literature.

Preliminary Physiological Considerations on the Study of Functional Diseases of the Heart.—Claude Bernard in some of his physiological works felicitously shows the fundamental similarity and unity of all living elements, whether pertaining to the highest or the lowest organisms. The primary conditions of living are the same in all: warmth, moisture, pabulum, oxygen. These must be supplied by their environment: aquatic animalcules obtain them in the liquid medium in which they live, and the essentially living elements of the higher animals dwell in and are constantly bathed by "interior medium," the circulating blood, which is their real environment. The life of these anatomical units is in strict and absolute dependence on a constant renewal of this fluid, and the heart, of all the organs of the body, is the one whose function begins the earliest and lasts the longest. It begins its untiring work long before it is developed; its perseverance in toil is in the ratio of the importance of the mission which it fulfils: it is the *primum movens* and the *ultimum moriens*.

"Whatever the complexities of the human organism," says Frederick Harrison, "there is throughout the whole the solidarity of a single unit.

The presence of a nervous system is no more an indispensable factor of this organic unity than is the presence of a circulatory system, and integrity of the central organ of all function.

The demonstration of this proposition is the well-known effects of disease of this organ. Take as an example a well-marked case of aortic insufficiency (Corrigan's disease). Here, with every diastole of the heart, a portion of blood, thrown into the aorta during systole returns, and you have constantly the pulse of unfilled arteries; there is oligæmia in the capillary system. As a consequence the vital elements are everywhere ill nourished. The brain is anæmic and irritable, though it is sluggish, psychical action generally is perverted and deranged, innervation languishes. The powers of the digestive system are impaired: the alimentary canal is the seat of venous stasis in which the other adominal viscera participate; frequent attacks of dyspnœ a (dyspnœa which becomes more and more permanent) testify to the profound disturbance of the pulmonary function.

The reciprocal influence of the organic processes on the heart has been for ages a matter of observation, though it is only of late years that its mechanism has been known: if integrity of the heart be essential to the healthful performance of the sytemic functions generally, integrity of the latter is equally essental to the normal working of the heart.

The slightest emotion causes some brief disturbance of that organ: a powerful emotion may temporarily or permanently suspend its action: the stimulus of volition may goad on the heart to efforts which end in exhaustion or in disease. Peripheral irritations—manifested to consciousness as pain—may raise the blood pressure in the viscera, and visceral irritations may augment the heart's action, or inhibit it altogether.

Nothing can, in fact, be more interesting than this whole study of the reciprocal action of the organism on the heart. Hard thinking calls, as it were more blood to the brain, and the heart does not fail to respond to the demand: severe muscular exertion drafts more blood to the muscles; the process of digestion requires more blood than is required during a quiescent state of the stomach; during gestation the heart of the pregnant woman is taxed to an extraordinary degree, etc.

If every powerful sensation may, as stated above, exalt or

depress the heart's action, and if obscure visceral sensations may have the same effect, then it is obvious that the heart may be deranged, temporarily or permanently, by its environment, if the disturbing causes be too violent or too persistent. That the heart is something besides a mere force-pump or hydraulic machine; that it has a wonderful power of adapting itself to changes in its internal and external circumstances: that it is in the closest relations with the tissues which it nourishes—sharing in their well-being, suffering with their derangements—is explicable, as a physiological fact, by a consideration of the nervous mechanism of the circulatory organs.

The cardiac innervation comprehends certain intra-cardiac ganglia, extra cardiac and nerves, derived from the sympathetic and cerebro-spinal system.

1. *Intra-cardiac ganglia.*—There are in walls of the heart certain ganglia whose office is to promote and regulate the rythmical working of the cardiac muscle. Not that the ability rhythmically to contract is not an inherent property of the myocardium to a certain extent, independent of the nervous system. It is nevertheless true, that in the performance of its ordinary function the heart is governed by nervous influence. Certain of these ganglia (ganglia of Remak) are placed at the point of entry of the nerves of the heart, the cardiac branches of the sympathetic and pneumogastric, whose terminal filaments are lost in these ganglia; they occupy the sinus of the vena cava. Other ganglia, those of Bidder and Ludwig, are situated in the auriculo-ventricular furrow. In these ganglia originate fibres, some of which, centrifugal, are distributed to the muscular fasciculi; others, centripetal, terminate in the endocardium. These ganglia, with their centripetal and centrifugal nerves, constitute an excito-motor arc, and are to a certain extent independent nerve-centres.

11. *Extra-cardiac ganglia.*—If we are to understand by this term every nerve-centre which influences the heart, we should have to include the entire cerebro-spinal and sympathetic system; the cardiac centre, *par excellence*, however, is the medulla oblongata. When by means of powerful electric currents you excite the rachidian bulb between the tubercula quadrigemina and the calamus, you obtain an arrest of the heart, or a simple slowing of the movements of this organ, according to the intensity

of the current employed.* If previously you cut the pneumogastric nerves, the excitation of the bulb at the point indicated produces an acceleration of the movements of the heart. It would seem then, that the medulla oblongata may, according to circumstances, cause retardation or acceleration of the cardiac contractions; it is especially the centre of impressions, which reflexly affect the frequency and rhythm of the cardiac movements.†

It is inferred that the effect of increased blood-pressure in slowing the pulse when the vagi are intact is brought about through this augmented pressure stimulating the cardio-inhibitory centre in the medulla, and thus partially inhibiting the heart (M. Foster, "Physiology," 151). The inhibitory action of the pneumogastric on the intra-cardiac ganglia is not well understood. That this inhibition coexists with augmented innervation and augmented energy is indisputable. Through the influence of the pneumogastric a more complete and extensive *libero-motor* action is obtained in the intra-cardiac ganglia, which, thus energized, slowly but thoroughly evoke the consentaneous activity of all the constituent fasciculi of the myocardium. It is "a long pull, and a pull altogether."

Other extra-cardiac ganglia exist in the cervical portion of the spinal cord. These ganglia may be regarded as the centres of the accelerator nerves—the thoracico-spinal filaments, as well as those which emanate from the great sympathetic (the latter having its origin in the spinal cord). Von Bezold has proved that excitation of the spinal cord, especially in its upper portion, augments the energy of the heart and arterial pressure. It is worthy of note that these centres (auxiliary cardiac ganglia) are in the closest relation with the vaso-motor centre, and that any excitation which raises arterial tension may be attended with accelerated cardiac action. Ludwig and Thiry have clearly proved this intimate relation.

III. *Accelerator and moderator nerves of the heart.*—There are certain nerves whose office is to quicken, others whose office is to moderate the action of the heart.

1. *The accelerator nerves* are intimately blended with the sympathetic system passing through and being associated with the lower cervical and the upper thoracic ganglia, but they are ultimately derivable from the cervical spinal cord. Irritation of the sympathetic or cer-

* Germain Sée: Maladies du Cœur, p. 429. Paris, 1882.
† Germain Sée: Loc. cit., p. 421.

vical spinal cord produces acceleration of the heart's pulsations through these nerves.* Very strong faradic currents are needed for effecting this result: these nerves seem to be effected by the various poisons which act upon the vagus and other parts of the nervous system: they are effective in the midst of profound asphyxia.† They are not considered as antagonistic to the pneumogastric, for if during maximum stimulation of the accelerator nerves the vagus be stimulated, even with minimum currents, inhibition is produced with the same readiness as if these were not acting. But little is known of the actual share which these nerves take in the natural actions of the economy.‡

Indirectly, by reflex action, acceleration of the heart's movements is produced by the excitation of the great splanchnic nerves, which causes contraction of the intra-abdominal vessels, increase of blood-pressure, and acceleration with augmentation of energy of the heart's action.

2. *The moderator nerves.*—It was a surprise to the world when Weber announced, forty years ago, the discovery that galvanization of the pneumogastric would arrest the heart's action. It was a greater surprise when the experiments of Weber, repeated by Budge, Waller, Brown, Séquard, and others, demonstrated that the heart, instead of being arrested in a state of spasm or contraction, was in a state of complete relaxation under the inhibition of stimulus conveyed along the par vagum. A moderate excitation of the pneumogastric slows the heart's action, a violent excitation arrests it in diastole; but this excitation, if continued, is followed by acceleration of the cardiac movements from exhaustion of the pneumogastric. According to the experiments of Waller, the direct inhibitory fibres of the pneumogastric are derived from the spinal accessory.

If the pneumogastric is, *par excellence*, the moderator nerve of the heart, among its filaments is a sensory nerve which is distributed to the heart, and which when irritated produces by reflex action dilatation of the splanchnic intra-abdominal vessels and lowering of the arterial pressure with slowing of the heart. This nerve is an inhibitory nerve acting indirectly: it has a common origin with the pneumogastric in the medulla oblongata. Discovered by Ludwig and Cyon, it is called the depressor

* Foster's Physiology, p. 148. Germain Sée: Maladies du Cœur, p. 417.
† M. Foster: Loc. cit.
‡ Baxter: cited by Foster.

nerve of Cyon. Any excitation of the terminal endocardial filaments of this nerve is reflected from the medulla oblongata on the splanchnic nerves through the intermediation of the spinal cord, extreme dilatation of the abdominal vessels takes place under the influence of this excitation, and a large sluice-way is opened for a great mass of blood: there is thus a considerable depletion of the blood-vessels of the other portions of the body, the peripheral resistance is reduced to a minimum, the heart's work is lessened, and the blood-pressure is lowered.*

As auxiliary to the cardiac nervous mechanism above mentioned, we have the vaso-motor nerves of the entire economy. Acceleration or retardation of the movements of the heart may be obtained by influences affecting the vaso-motor nerves. If we may consider these nerves as consisting of vaso-constrictors and vaso-dilators, any irritation of a sensory nerve will cause vaso-constriction of a part, and this augments peripheral resistance, and the work of the heart, whose pulsations are characterized by greater frequency and energy. The influence of an impression on the vaso-motors sufficient to markedly raise the blood-pressure and quicken the heart is seen when the great splanchnic nerve is moderately excited by electricity, as this nerve contains the vaso-constrictors of the intra-abdominal vessels—an experiment which has been described by Vulpian, Foster, and all recent physiologists. On the contrary, section of the great splanchnic is attended with abdominal vaso-dilatation and a marked fall in general blood-pressure, with lessening in the force and frequency of the pulse.

Influence of the blood-vessels on the heart.—Any considerable modification in the peripheral circulation, due to vaso-constrictive action, is attended with acceleration and augmentation of the heart's action. Claude Bernard attempts an explanation of this fact in a remarkable lecture on the physiology of the heart and its relations with the brain, delivered in 1865, but, singularly, invokes only the well-known influence of the pneumogastric. Vulpian has studied the subject more profoundly.† "Suppose," he says, "that under the influence of severe pain, caused by a wound, or even by pinching the skin in some place, there is produced a contraction of the greater part of the arterioles of the body, there will be augmentation of arterial

* Vulpian: Appareil Vaso-Moteur, t. i., p. 354.
† Ibid, t. i., 366.

tension, and the heart will have to struggle against this excess of tension. This organ will then be forced to put forth more energy to propel each ventricular wave into the aorta and arterial system. Not only will the cardiac contractions be more vigorous, they will become more rapid. Now it is clear that this reaction of the heart is not purely a mechanical effect. The modifications which characterize its movements are due to the putting in play of the apparatus of innervation of the heart. Under the influence of augmentation of the intra-arterial pressure, the blood contained in the ventricle undergoes, at the moment of systole and the opening of the sigmoid valves, an excess of tension. Hence results, without any doubt, a particular impression in the endocardial extremities of the centripetal nerves of the heart. This impression is carried to the rachidian bulb by the pneumogastric. There a phenomenon of central innervation takes place, as a result of which a centrifugal excitation, emanating from the medulla oblongata and the cervical region of the spinal cord, is conducted to the intra-cardiac ganglia by the cervical sympathetic cord and its ganglia. The fibres emanating from the cervical sympathetic cord and the superior cervical ganglia are probably those whose operation provokes a redoubling of energy of the movements of the heart. As for the acceleration of movements, this depends on excitation of the accelerator nerves which spring on each side from the third branch of the inferior cervical ganglia.

We see from this that the simple fact of contraction of the vessels has for necessary consequence, when the heart and its nervous apparatus are in the normal state, a very remarkable reflex modification of its movements.

If the peripheral vessels, arterioles and venules dilate instead of contracting, phenomena just the reverse take place, the heart will contract more feebly and more slowly. The impression produced on the endocardium by the diminution of intra-arterial tension, will be necessarily very different from that which took place under the conditions which we have just examined.

Different phenomena of central innervation also are awakened in the rachidian bulb. This time the centrifugal excitation will put in activity the cardiac fibres of the pneumogastric. Under the influence of excitation of these fibres the movements of the heart will become weaker and slower.

The important point now to be noted is this: If the heart

may be modified in its action by the condition of the arterioles and cappillaries of a more or less circumscribed portion of the body, it may be deranged thereby temporarily, and even permanently. Functional derangements coexist with integrity of the heart-substance and the valves: but a persistence or intensification of the causes which give rise to functional troubles may produce organic disease. There is a morbid condition of the arterioles and capillaries known as arterio-capillary fibrosis, described by Gull and Sutton, Broadbent, Burdon-Sanderson, Mahomed, Lecorchi, and others. According to Gull and Sutton's hypothesis, this pathological condition, when it effects the renal circulation, is the chief secondary etiological factor of chronic Bright's disease—the morbid alteration of the blood—which causes these vascular degenerative changes, being primary. The high arterial pressure which results from this sclerosed condition of the arteries eventually entails on the heart dilatation and hypertrophy: but long before this structural modification takes place, the heart, laboring to surmount the peripheral resistance, manifests by exaggerated action its increased burden. The irritation of the centripetal nerves of the endocardium by morbid blood is undoubtedly, in these cases of chronic insterstitial nephritis an important factor in the production of the ensuing cardiac changes. It is none the less true, however, that the mechanical obstructions are enough of themselves seriously to tax and embarrass the heart, which if it fail to meet the extra demands made upon it, will make known its incompetence by derangements of rhythm, passive dilatation, and asystolism.

Relation of work to the heart's action.—Severe exercise—physical and mental—increases the frequency and energy of the heart's pulsations. Augmentation of function necessitates a more abundant sangineous irrigation. The working muscles or working brain demand more blood, and the heart is stimulated to increased activity. The mechanism is not easy of explanation. There are probably simultaneously going on vascular contraction and vascular dilatation, augmentation and diminution of pressure. Vasodilator action undoubtedly predominates in the parts under exercise, and though peripheral resistance is lowered, vascular tension is raised. This is practically the case, although theoretically it would seem as though it must be otherwise.*

* See Vulpian's Explanation, loc. cit., t. i., p. 170.

The pulse beats rapidly and with energy. A relatively quick pulse is quite compatible with a hard, strong pulse, and in experiments on animals it is generally noted that the movements of the heart are accelerated with augmentation of the intra-arterial pressure. It is also true that in the human subject a slow pulse and a strong, high-pressure pulse very often go together. The heart may meet its increased tasks by slow, powerful beats, or by greater celerity of action, putting forth as much force in the one case as in the other.

The practical part to be now presented is this: If exercise compels the heart to do more work, severe exercise may enfeeble, and even exhaust the heart. This is the important physiological lesson for us now. There is no hard and fast line between that exaggerated action which accompanies overwork, and that exaggerated action known as palpitations.

The heart undoubtedly possesses extraordinary endurance and is popularly said never to rest. It may, however, be over-taxed and enfeebled, like any other muscle. This enfeeblement may manifest itself as want of muscular tone, which may result in dilatation, or in hyper-irritability of the intrinsic nervous ganglia of the heart, or its sensory nerves; the latter pathological condition finds expression in ataxia, arythmia, or intermittence, all resulting from exhausted cardiac innervation.

Modification of the heart's action by toxic agents.—We can experimentally produce accelerated action of the heart in animals, by injecting certain poisons, as nicotine. After a moderate sub-cutaneous injection of nicotine there results a considerable acceleration of the pulse from paralysis of the inhibitory system.* We have actually produced palpitations, such as we see so often in smokers, from the depressing effect on the functions of the par vagum of tobacco. The toxic effect of nicotine is exerted on the bulb, whose reflex excitability it lessens and abolishes.

Similar effects on the heart and pulse may be produced by belladonna, or its alkaloid atropia, which is a veritable paralyzer of the pneumogastric.

Influence of emotion on the heart.—Enfeeblement and even paralysis of the inhibitory cardiac centres is witnessed under the influence of strong emotions. Everybody is familiar with the effect of fear in accelerating the heart's

† Germain Sée: Op. cit., p. 232.

action. Intense sorrow or disappointment suspends the functional activity of the higher nerve-centres, and the heart in consequence lacks certain important stimuli to action. This organ, then, is hindered and inhibited in its action by the painful emotions: while the cheerful emotions raise the blood-pressure and energize the heart and circulation. These are facts of common experience.

It is scarcely possible at the present day to give a satisfactory explanation of the effects of the emotions on the heart and circulation. Fear and rage, for instance, cause powerful perturbation of the vaso-motor system, and make the heart beat quickly, wildly, and violently; and yet, as Darwin says,* it does not pump the blood more effectually over the body, for the surface seems bloodless, and the muscular strength soon fails. At other times, the first depression is followed by vigorous reaction, in which the heart rebounds, as it were, like the horse which has felt the spur. The heart is, as Claude Bernard says, the most sensitive of the organs of the vegetative life, and undergoes some modification in response to every emotion.

The lesson which I wish now to convey is this: If the heart may be modified in its operations by strong emotion, it may be deranged thereby. Persistence of the cause will produce persistence of the effect, and functional perturbations engendered by grief, suspense, disappointment, etc., may, if the depressing emotion be long continued, become chronic. Here we have a possible explanation of many of those cases of chronic, so-called "essential" palpitations, when, for a series of years, there is inordinate frequency of the heart's pulsations without organic disease. Every disturbance of rhythm necessitates a new adjustment in correspondence with changed conditions, and equilibrium of any kind once established, tends toward permanence. The persistence of organic habits is, as Mr. Herbert Spencer would say, a corollary from the persistence of force.

Physiology thus furnishes important hints as to the possibility, the causes, and the modes of functional heart troubles.—*E. P. Hurd, N. Y. Med. Record, Oct. 20.*

Acute Tonsillitis—Efficacy of the Compound Guaiac Gargle and of the Salicylate of Sodium.—For therapeutic purposes, according to the teaching of

* Expression of the Emotions, etc., p. 76.

Prof. J. Solis-Cohen, and as practiced in his clinics, cases of acute tonsillitis may be divided into two classes: 1st, simple inflammatory or local; 2d, rheumatic or constitutional.

Each of these classes might be extensively subdivided, according to the most prominent objective or subjective, anatomical or pathological manifestations. Such refinement in nomenclature (for this alone is it, practically) is, however, unnecessary in arriving at the therapeutic indications. For whether the tonsillitis be unilateral or bilateral, or the two glands be affected consecutively—whether the inflammation be superficial or deep-seated, circumscribed or diffuse, limited to the follicles, or involving all the component structures—whether the morbid process be confined to the tonsil, or extend more or less widely among neighboring tissues—any particular case having been properly assigned to one of the two groups mentioned, its treatment need not be materially changed.

Of course, should suppuration threaten or occur, or should the enlargement of the tonsils be such that respiration becomes seriously impeded, incision, scarification, or other appropriate surgical procedure may be required. But when the patient is seen early, say within the first twenty-four hours, such accidents are very unlikely: if, indeed, the tendency to grave manifestations be not entirely averted. At all events, they did not arise in any of the cases treated at the Polyclinic.

The treatment has been as simple as it has been eminently successful: the principal reliance having been placed upon two remedial measures only, each of which seems entitled to be termed specifically appropriate for the particular group of cases in which it has been employed.

1. *Simple Inflammatory Tonsillitis.*—When the principal objective symptoms consist in alteration of voice, and more or less redness and enlargement of one tonsil, with or without swelling of the glands at the angle of the jaw: there being little constitutional disturbance: the pain complained of being chiefly due to tension: the odynphagia which is usually present having manifested itself after the swelling of the gland has been noticed: the disease may be considered as a local affection.

The treatment adopted in such instances is a modification of the old and well-tried *guaiac* treatment: and consists in the employment as a gargle of a mixture long known throughout the West and Southwest under the name of

"diptheria mixture" and similar titles. This is known to the House Pharmacopœia as the *Gargarysma Guaiaci Composita*. Two fluidrachms each, of the ammoniated tincture of guaiac and the compound tincture of cinchona, are mixed with six fluidrachms of clarified honey, and shaken together until the sides of the containing vessel are well greased. A solution, consisting of eighty grains of chlorate of potassium, in sufficient water to make four fluidounces, is then gradually added, the shaking being continued. If the apothecary is careful to make this preparation *secundum artem*, a not unpleasant mixture will be obtained. Without due care, however, the resin will be precipitated.

The patient is directed to gargle with this mixture freely and frequently, at intervals varying from every half-hour to every three hours. In some instances, a saline cathartic is first administered. Should any of the guaiac mixture be allowed, it is considered rather beneficial than otherwise, and its deglutition is sometimes recommended.

Relief is usually experienced within a few hours, and recovery is prompt. Patients often return only to report their cure.

A young colored man had been attacked about eight hours before presenting himself at the clinic. When the writer saw him, there was great enlargement of the left tonsil, causing intense pain, and preventing deglutition of solids. The submaxillary gland and some of the cervical glands of the same side were so much swollen that he was compelled to bend his head down toward the right shoulder. This patient reported himself well, sixteen hours after coming under treatment. In his case, one ounce of Rochelle salts was first administered, and the compound guaiac gargle was directed to be used every two hours: but the relief followed the first application was so grateful, that, in order to secure freedom from pain, the patient resorted to his medicine every half-hour or so.

A little girl of seven years was brought to the clinic with unilateral follicular tonsillitis, a few hours after she had begun to complain of pain in her throat, and was told to use the compound guaiac gargle at intervals of two hours. She did not return until a month later—June 16—when she was brought for treatment of an acute coryza. Her mother remarked: "That medicine for her throat worked like a charm. She got worse for a few hours, but was well next morning'.'

Several similar cases of prompt relief could be cited in addition.

II. Rheumatic or Constitutional Tonsillitis.—When the first manifestation of the disease (excluding prodromata of headache, malaise, etc., which may or may not be present) is intense pain upon deglutition, causing great accumulation of saliva from unwillingness to swallow the excessive secretion: examination of fauces revealing perhaps a slight congestion—perhaps nothing more: more or less febrile reaction soon ensuing: the case may be assigned to the second or rheumatic group.

In these cases, the odynphagia cannot be explained by anything visible upon inspection. It is sometimes referred to a point representing the entrance into the œsophagus, and the examination with the laryngoscopic mirror will show some redness of the mucous membrane covering the arytenoid and supra-arytenoid cartilages and the pharyngeal surface of the cricoid cartilages. More or less soreness in the throat is constantly present: respiration often becoming painful, and phonation excessively so.

Some hours after, as the headache, pulse, and temperature declined, one or both tonsils become enlarged: usually one consecutively to the other. The follicles are often distended with a caseous or sebaceous material, which, under the microscope, is seen to consist of scattered (pavement) epithelial cells, some oil globules, and a mass of granular detritus, mingled with which are the spores and filaments of the *Leptothrix buccalis*, *Oïdium albicans*,* rod-bacilli, and other fungi, as usually found in the secretions both of healthy and of diseased tonsils. Some drops of blood from an inflamed tonsil, in one of these cases, showed great deformity of the red corpuscles, and unusual size and number of the white corpuscles, which were more than ordinarily granular: but no micrococci could be detected therein. A drop of blood from the finger of the same patient presented nothing abnormal.

Usually, as the pain in the throat subsides, muscular soreness occurs in the neck, back, and loins, oftentimes in the sterno-cleido-mastoideus of the side corresponding with the tonsil first enlarging. Sometimes the soreness is experienced in one or more of the limbs: and some one of the

* Or something which I cannot distinguish from it. I have seen this fungus in but one case, and curiously enough, in this instance there were no aphthæ upon the mucous membrane covering the hard palate; though I have observed aphthous sores in several of these cases, and especially in the neighborhood of the incisor teeth.

larger joints may become more or less stiff, though neither red, swollen, nor painful. Indeed, rheumatic or rheumatoid pains may flit from one portion of the body to another, during several days. In rare instances, transient albuminuria follows.

These cases are treated with *salicylic acid* or *salicylate of sodium*. The constipation usually present, due either to the disease or to the remedy, is relieved with an appropriate saline cathartic.

The following formula makes a pleasant and efficient mixture:

℞.—Sodii salicylatis.....ʒij.
Ol. gaultheriæ.....m̃j (vel. q. s.).
Liquoris ammonii citratis,
Syrupi simplicis.....*aa* f ʒii.—M.
S.—A tablespoonful every two hours.

As soon as the pains are relieved, the intervals are lengthened; or salycilate of quinine or of cinchonidine is substituted, as a tonic, in five-grain doses, at intervals of four to six hours. Ringing in the ears (an occasional occurrence) calls for cessation of the salycilates; when it usually passes away. In one case, where persistent, it was relieved by small doses of the infusion of digitalis. During the progress of the more acute symptoms, the patient's comfort may be promoted by allowing small lumps of ice to melt in the mouth from time to time, or even by the use of the compound guaiac gargle.

Stiff-neck, the most annoying of the muscular complications, should it be severe, is relieved by faradization more promptly than by medication: the negative electrode being applied to the painful spot, or moved along the course of the sterno-cleido-mastoid muscle, the positive electrode being grasped in the hand of the same side. The same measure is, of course, applicable to other muscles.—*J. Solis Cohen. Medical News.*

Periostitis of the Mastoid; Necrosis; Recovery.—Dr. Wm. S. Cheesman, of Auburn, New York, reports an interesting case of this in which the bone was trephined, and the patient made a good recovery.—*The American Journal of the Medical Sciences*, Ocober, 1883.

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

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EDITORIAL.

AN OLD COMPLAINT AND ITS NEEDED REMEDY.

Among the many important questions dealt with by Dr. William Varian, in his annual address as president of the Pennsylvania State Medical Society, at its meeting May, 1883, the solution of that sombre but always seasonable problem—"the proper disposal of the dead"—figured as towering portion of the discourse. Deeply absorbing as a hygienic question to the civilized world, and destined soon to be a momentous one for our legislators, the subject could not have been more appropriately selected. We of this city, with our painfully insanitary methods of interment, with our centrally located cemeteries, and peculiarly unfortunate nosological circumstances, have ample reason to admit the expediency of the question and demand of our authorities its speedy and satisfactory conclusion. But few years have elapsed since the vigorous protest of one of our sanitary officials was heard in our midst, and the graphic denunciation of our methods of sepulture still lingers with caustic freshness in our memories. It is unnecessary to recur to past testimony, to historic protestations and denunciations made, both privately and officially, by the people and profession of this city, against the pernicious influence of our intra-mural cemeteries; the evil itself is too palpable,

too acutely perceptible, to demand a rehearsal of such evidence. We have been complaining of this evil for a century and, as a local contemporary says, have been doing nothing.

The history of our city demonstrates the fact, that as the health and comfort of our growing population have made themselves felt, the most troublesome central graveyards have been abandoned or moved to further distances, only to repeat there the nuisance and discomfort created in former years. The comparative topography of New Orleans reveals the startling fact (vide Dr. Watkins' report to the Sanitary Association), that some of the most populous portions of the city at present have been the cemeteries of the past. "The square bounded by Rampart, Burgundy, Toulouse and St. Peter streets is an example. On Basin street, a cemetery which had occupied four squares has decreased in size to one square, the other squares now being inhabited by the living. On Bayou Road and Esplanade streets, where there are now palatial residences, was once a slave burying-ground." At present, the St. Louis, Claiborne and Girod street cemeteries, surrounded as they are, on all sides, by crowded houses, and especially the low, damp and insanitary homes of the laboring and indigent classes, are decidedly in most need of early suppression. To attain so desirable an end, however, will be a matter of some difficulty,—the rights of proprietorship and the sentiments of the friends of the buried will undoubtedly clash violently with the realization of any scheme intended to abolish these consecrated grounds.

Yet, it certainly lies within the power of our council to arrest by ordinance the continuance of the practice of intramural burial and, in this manner, avoid its grave discomforts and certain dangers. To abate such a nuisance would undoubtedly be a most signal achievement for our sanitarians, and one worthy of congratulation: It would unmistakably enhance the future of our hygienic interests and add no meagre quantum to the general cheerfulness of some rather lugubrious portions of our city. But is this all that we should ask:

are we to limit our efforts to the ephemeral difficulties of the moment and not endeavor to reach a final and satisfactory eradication of both actual and coming difficulties, when a remedy potent and easily applied is ready at hand? Clearly, the only answer to this query is unavoidable, and in advocating cremation as the remedy to this ill, no one, unless singularly prejudiced, can fail to recognize the advisability of the measure proposed. In a city with the great prospects and increasing population like New Orleans, the simple removal of its central burial grounds to the outskirts of the town would merely postpone the application of the ideal and coming method of interment and leave only half done, as heretofore, the accomplishment of the sanitary purposes of burial. When we consider the longevity of disease poisons; their perpetual presence in our midst in either of their most infectious and contagious types, viz: yellow fever, small-pox, scarlatina, rubeola and diptheria, etc., it becomes a matter of no little importance how we dispose of the cadavera in which they are contained in order that they may not react perniciously upon our ourselves or our successors. And it certainly appears plain to us, that with our oven-like sepulchres, above ground, and surrounded by the most appropriate media (furnished by our perennially warm and moist atmosphere) no conditions could be better assembled to perpetuate and propagate disease germs, whatever these may be, than are to be found in the tombs (rather call them culture-ovens) of our dead. As ground-burial is excluded by the nature of our soil, we must conclude, with Dr. Varian, that there is but one satisfactory way out of the difficulty, and that is by cremation. In truth, we believe, that all refuse animal matter, whether human or animal, should be promptly condemned to the ordeal of fire, as we would, in so doing, greatly lessen the dangers and ills of the human race. "Let the crematory take the place of the cemetery and we will in some degree protect our children's children from being obliged to suffer many of the loathsome and deadly diseases which in this age afflict ourselves."

And the application of the remedy should not be hampered or affected by any theological or sentimental arguments: in reality, neither affection nor religion can be outraged by any manner of disposal of the dead, which is done with proper solemnity and respect to the remains of our friends. "The question," as the great hygienist, Parkes, says, "should be placed entirely on sanitary grounds, as it is only in this way that we can judge of its merits rightly." The advantages of cadaveric incineration stand so prominently in the light of reason, that the axiomatic clearness of its truths demand of us no commentary. In Italy, Germany, England, France, Spain and Portugal, the cremationist propaganda is daily gaining ground. In the latter country especially, the government has vigorously taken the matter in hand and established its practice in a manner that does great credit to its progressive spirit and enlightenment. We are informed, in fact, by the latest cablegrams, that the authorities of all the principal municipalities of the kingdom have issued decrees making cremation absolutely optional in all cases, and compulsory in every case of death occurring in a district in which diseases of the nature of plagues shall be officially declared epidemic. These decrees are uniform, and contain substantially all the legislation sought by cremationists.

Both the authorities and the sanitarians believe that the agitation will be found to have so abolished prejudice that cremation, now that it is encouraged by Portuguese law, will rapidly supersede interment. To prepare the way gradually for this change, the new decrees ordain that hereafter, at the end of every five years, all the cemeteries in each municipality and large towns throughout the kingdom shall be entirely cleared of human bodies, all of which shall be burned in the public crematories.

This certainly promises an encouraging future for cremation, and we hope that part of the liberal spirit that is now so beneficially revolutionizing mortuary practice in Portugal will be implanted here. Now, however, that this

subject has received public attention through the wise and fearless recommendation of our last and most enlightened grand jury, we hope that a practical and successful effort will be made by our municipal and health authorities, but more particularly by our enterprising Sanitary Association, to inaugurate a hygienic movement that will undoubtedly receive the approbation of liberal-minded citizens and tend more than any other local measure to insure our sanitary reconstruction and increase our reputation abroad as progressive and enlightened sanitarians. The proposition of the managers of the Le Moyne crematory of Washington City, the pioneer cremationist institution in this country, is an exceptionally favorable one. According to the local press, they offer to furnish all the necessary information and details of this process. Mr. Le Moyne, we understand, proposes to build a furnace in this city if sufficient inducements are held out to him, and we believe with the *Daily States* that should the Council approve of this undertaking, that the movement should be initiated by cremating the pauper dead, the bodies of criminals, and especially those of all dead from contagious and infectious diseases. If a contract with Mr. Le Moyne be made, then, not only will we hear less of disgusting graveyard recitals, less of complaints on cemetery nuisances, i. e., bad odors and sights that afflict the people residing in the neighborhood of these mortuary residences, but we will prepare the way for the practical extinction of "that most loathsome of created things—the cold worm that fretteth the enshrouded form," and realize, without its ghastly presence, the great Scriptural truth: Dust thou art and unto dust thou shalt return.

A REMARKABLE CASE.

Probably one of the most interesting if not unique cases in obstetric casuistry is the now celebrated Quimperlé instance of fœtal retention recently reported by Prof. Sappey to the French Academy.

It appears that though the woman in whom the observation was made died thirty-eight years ago, the remarkable features of her history were never revealed until Prof. Sappey made them public in his late communication. Instances of prolonged retention of the fœtus in utero and particularly, as in this instance, in cases of extra-uterine fœtation, are not altogether rare, and some of them, such as the 'Toulouse' case, in which the fœtus was retained in the mother's abdomen twenty-six years: the Sens (France) fœtus, twenty-eight years: that at Port-a-Mousson, thirty years: the Joincy fœtus, thirty-one years, and the Luzel (Suabia) specimen (referred to by Sappey) which represented forty-seven years intra-abdominal retention, are curious enough, though more remarkable still and bearing the closest analogies to the present example, is the one spoken of by Playfair ("Midwifery") in which the fœtus was retained fifty-two years, and was found, on removal from the mother's abdomen, as fresh and unaltered as a new born babe.

The Quimperlé fœtus, however, is the oldest of all these, it having seen the light of day only after fifty-six years sojourn in the maternal structures. The case presents such interesting features that we will reproduce Mr. Sappey's graphic account in its entirety.

"The patient became pregnant at the age of twenty-eight years. After reaching her eighty-fourth year, during which time she enjoyed perfect health, she was obliged to seek admission (1845) in the Quimperlé hospital, where she died three weeks afterwards. M. Beaugandre, who had been her attendant, performed the autopsy. After incising the abdominal walls by a long cut, he discovered a tumor that was situated outside of the uterus, though attached to it by a fallopian tube, of which it seemed a part. This tumor, like others of the same nature, was a cyst with exceedingly hard and thick walls and irregular mammilated appearance. After lifting the cyst shell, for such it was, out of the abdomen, it was sawn across in two halves, in order to expose its contents. Great was the surprise of all the

bystanders when these were revealed, for within this envelope, which apparently possessed all the attributes of a mineral product, a well developed fœtus was discovered. And more remarkable still, this fœtus, even after its long captivity, appeared not to have suffered the least alteration. It lay in the usual attitude, the extremities flexed upon the trunk, the chin pressed on the thorax. The completely developed pupillary membranes attested the fact it was at least of six or seven months development. The cutaneous investure, the superficial organs, the viscera within the splanchnic cavities, all the muscles and all the soft parts had preserved their normal consistence, elasticity, suppleness and color. Briefly, the fœtus really appeared to the eyes of the spectators an infant asleep. In the presence of so unexpected a spectacle a sort of thrill passed through the whole assembly, which was communicated with lighting-like rapidity to the people outside the dead-house. In an incredibly short space of time the whole town had been to the hospital and visited him, who was known as '*le petit viellard de 56 ans.*'"

In order to explain the prolonged preservation of the fœtus, Mr. Sappey advances the following proposition: Fœtuses which, after death, are indefinitely preserved within the maternal cavities owe their preservation to the physical advantages of their imprisonment, which carefully protects them from the destructive influence of atmospheric germs.

This theory, which is not so new as M. Sappey would make it (Litzman and others have applied the facts of the germ theory to such cases long before), no doubt explains the phenomenon of non-decomposition when the fœtus is protected from atmospheric contamination; but why it is that even when air is excluded and the fœtus does not undergo putrefaction, it should suffer such diverse retrogressive changes as fatty transformation (adipocere), calcareous degeneration (constituting the so-called lithopædia), maceration and solution when surrounded by its liquid menstruum, mumification, etc., or chose to remain,

as in the present instance, perfectly well formed and unchanged, yet remains a mystery, as unsolved and problematical as it ever was.

Correspondence.

Messrs. Editors—I send you an account of a curious freak of lightning which should have been published long since, but the paper was accidentally mislaid.

The zigzag lines which lightning leaves upon the surface of solid bodies are sometimes singularly curious.

I was once called to see a young girl who received a stroke while reading in the third story of a house. The first marks of the fluid were upon the side of the neck beneath the ear. I cannot now remember whether she was wearing earrings at the time or not. A rather broad burn extended from the first point of impression downwards to near the shoulder at which it divided, one current extending over the chest anteriorly, and the other over the posterior part. Each of these currents divided and subdivided into numerous ramifications very arboreal in appearance.

Two miniature trees, starting from a common stem and branching downwards anteriorly and posteriorly, appeared branded into the skin.

If, as so commonly happens, the girl had been near a tree when struck, the case would have given support to the vulgar opinion that surrounding objects are daguerreotyped by lightning strokes upon the bodies of stricken persons.

But in the following related instance, the tracings of the electric fluid upon the human body were most remarkable, because of their resemblance to letters of the alphabet: and this resemblance was not to one letter alone, or to any letter selected as it were by chance, but to those three letters which spell the awful name whose weapon of vengeance mankind has always considered lightning to be.

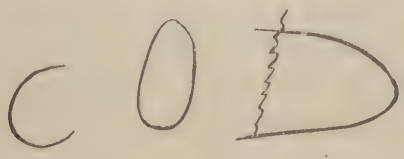
"Five persons were in a tobacco barn, negro men and

boys. He who was killed was seated on some tobacco stalks and other rubbish. He was at least three feet, if not more, from the nearest timbers of the house and was not even touching the ground. He who was worse injured though not killed, was seated on some loose tobacco lying on some tobacco sticks which were placed across two of the lower tier poles. An old style grain scythe and cradle was lying on the sticks behind him and three or four feet from him. The two others who were knocked down were sitting on the ground (floor) near, if not leaning against the wall of the house. The fifth was in a chair, two or three feet from the wall of the house and nearly directly under the place where the lightning struck the roof. There seems to me to have been two bolts, of which each one went to its man. The electricity appears to have gone directly from the roof, which it penetrated as a ball would have done, to these persons. There is is no sign of its having followed the timbers of the house at all. He who was in the chair was the only one not at all shocked, or least shocked.

"When George Brown was first seen by me he was making frantic efforts to free himself from two strong men who were holding him and seemed to be entirely bereft of mind and was drunk.

"A number of attempts were made to get him to take medicine by the mouth, but without success; he either would not or could not swallow. I poured a gourd of cold water on his head and it had so good an effect that I continued its use, whenever he renewed his efforts to liberate himself. And by this means he was gradually calmed and his mind and speech gradually restored.

"In his, Geo. Brown's, efforts to free himself from those who were holding him, he rubbed the skin from a portion of the burns on his chest, and the bare, burnt flesh thus exposed presented the following characters:



while within, around and between them the flesh was intact, though partially scarred. These characters were so placed as to form a triangle, not as I at first stated, equilateral, but as a subsequent thought has convinced me, between that and a right angled triangle. The papers make me say GOD, but I do not and have never said or written anything of the sort. I call them characters. I make them, that every one may judge for him or herself. I claim, as the next sentence in the published account shows, simply, that they are "very close representations, etc." Geo. Brown was stricken down about 3 P. M. and by 9½ or 10 P. M. he had beocme calm, and his mind and speech seemed perfectly restored. It then only remained to treat his burns. He is convalescent.

Very truly,

THOMAS E. MOORMAN, M. D."

The negro, before and at the moment of receiving the stroke, was giving utterance to the most blasphemous language. The awe-stricken witnesses to the catastrophe, and many who have read accounts of it, believe that the bolt had been specially prepared by an offended Deity and so guided as to spell His name, that none might doubt the source from which the warning came.

"Within the grasp of thy unconquerable hand is held thy minister—the ever living bolt."—*Charicles, Hymn to Jupiter, B. C. 250.*

Dr. Moorman's explanations and diagram were rendered proper and almost necessary for the protection of his scientific reputation, as the newspaper slip published herewith abundantly shows.

Very respectfully,

S. M. BEMISS.

New Orleans, September 26, 1883.

PROFANITY AND THUNDER.

A wicked Virginia negro has recently been stricken by lightning, and although he survives, preserving most of his wool and what he calls his faculties, he is said to bear a cutaneous inscription which the authorities of a neigh-

boring camp-meeting interpret as a rebuke of the profanity with which, when struck, he was enlivening the tedium of his rain-bound confinement beneath the roof of a somewhat leaky barn. The facts are attested by Dr. Thomas E. Moorman, who lives on Mount Zion, in Campbell County, within reaching distance of barn and darky, and if they be true according to his record of them in the Richmond *Christian Advocate*, it is quite safe to affirm, that that particular colored person will not be likely to swear out loud hereafter till it stops thundering. He may let out with increased looseness as soon as it clears up, but any intelligent calculation of the probabilities, makes it safe to infer that henceforth he will sit carefully on his own exclamatory safety-valve till the sun comes out. Whether his tremendous warning will tend to purge the discourse of his fellows during rainy intervals, is perhaps a matter of some doubt, though it is clear that it ought to do so: an opinion which we share in common with Dr. Moorman and the religious journal aforesaid. These sudden and supramundane rebukes of wickedness inflicted in the instant of its commission, afford moving illustrations to the orators of camp-meetings and the editors of the pious provincial prints, though it is open to question whether they are not apt in some degree to overwork their material, as the forensic antagonist of Choate on a certain occasion "overworked the participle." The thunder-smitten African is an undoubted godsend to the wandering revivalist of the region in which his catastrophe befell, but they should take care not to exhaust the force of his example by making too much noise about it. It might turn out on more scientific and less credulous investigation than Dr. Moorman's, that the name of the Deity was not legibly spelled out in cicatrices over the ensiform cartilage of the darky, as Dr. Moorman says it was. Seriously and candidly viewed, these ominous stigmata might resolve themseves into mere hieroglyphics, formless as the casual trace left by the kick of a mule, illegible as the confusion following the impact of an antagonist's head.

Again, as has befallen many a worthy person, the revivalist himself might some time be "scorched by mighty Jove's ethereal dart"—a fate to which his sylvan discoursings rather exposes him—in which case the terrors of the occurrence would have to be precisely reversed. The Romans had a notion that to be struck by lightning was a distinguished mark of the favor of the gods, and the brazen wolf of the forum imparting the milk of conquest to her brazen sucklings, derived a good share of her sacredness from these electric visitations. According to tradition, she was smitten so often that it would in these days have given rise to the suspicion that she was connected with the storm systems of the peninsula by a private wire. In later times the iron laurel of Ariosto's bust was shorn off by a bolt, leaving, however, his bald, ferruginous visage crowned with a mystic aura, which yet glimmers to the eye of the mind a statelier and sublimer coronet than that which war rent away. These ancient and mediæval Roman notions do not, however, seem to have penetrated the West Virginia intellect, nor, indeed, is there any particular reason why they should. It will undoubtedly have a much better effect on society in that hard-swearing region, to set their singed "nigger" up as an awful example, than to make much of him and account him distinguished by his fiery accolade. The latter mode of treatment would cause every ambitious and discontented Republican politician between the Blue Ridge and the Pamunkey to sit each on his several fence during the entire hot season, watching for thunder storms to swear at. Such a broadside of blasphemy suddenly exploded in the region of the ecliptic, even if it did not effect any disturbance of the planetary equilibrium, would be likely by its recoil to break a good many fence rails, besides corrupting the conversational morals of the region. This would imperil the salvation of the citizens and the safety of the crops, thus indefinitely postponing the millenium and the resumption of specie payments, both bad things to postpone.

Editors New Orleans Medical and Surgical Journal;

Gentlemen :—I have read Dr. Bemiss' article in the September number of your Journal and beg leave to correct a few errors in Dr. Smith's letter. Campbell was my patient. On my first visit I found him with fever: he had several attacks of intermittent fever during the summer. As yellow fever was epidemic at Morgan City, I asked him if he had been exposed in any manner, and received a negative answer. Upon one of my visits to him I was informed by the attendants, that he had vomited a black liquid. I asked them to let me see it, but was told that it had been thrown away. I requested them to save any more that might be vomited, but this was not done. Considering the case a suspicious one, I again asked if he had in any way been exposed to infection, and was informed positively that he had not.

On September 25th, 6 A. M., I was summoned in haste to see him, but on my arrival found him dead. The body was yellow, and his clothing and bedding were covered with black vomit. During his illness there was no jaundice, or bleeding from the nose or gums, and the kidneys acted well.

I shall now explain how (in my opinion) Campbell's case was the focus of the epidemic. A towboat direct from Morgan City landed at Whitworth's mills. Campbell went aboard of her, and came into the hold. He was a carpenter and was at the time engaged in repairing a house across the street from Mrs. Hottendorf's. While at work he was taken sick and asked Mr. Cowan to discharge him. He purchased some ice from Hottendorf's and went home. Mrs. Hottendorf was taken sick soon after and died on September 27th, two days after Campbell's death. In that way he gave it to Mrs. H.

R. A. Cowan was taken sick with the fever, had black vomit and recovered. E. P. Hawkins assisted in burying Campbell, was attacked with the fever, and recovered. Dr. Davidson, of New Orleans, saw Hawkins and Cowan.

Felix Sennette, during Mrs. Hottendorf's illness, visited her store frequently. He contracted the fever and died October 10th. The mulatto referred to in Dr. Smith's letter was seen once by Dr. Allen and twice by Dr. Smith. This patient contracted the disease from the bed clothes of Campbell, which were washed at his house by his daughter.

Hottendorf's store and residence were in the same building, the portion occupied by the family being separated from the store by a partition and a door which was always open.

Very respectfully,

S. M. Abbay, M. D.,

Centreville, St. Mary's Parish, La.

Reviews and Book-Notices.

Anatomy, Descriptive and Surgical. By Henry Gray, F. R. S., with the Collaboration of T. Holmes, M. A., H. V. Carter, M. D., and T. Pickering Pick. A new American from the tenth English edition, to which is added *Landmarks, Medical and Surgical*, by Luther Holden, F. R. S. C., with additions by Dr. W. W. Keen, 8vo., pp. 1023. Philadelphia: H. C. Lea's Son & Co. New Orleans: Armand Hawkins, No. 196½ Canal street.

The profession will again welcome this classical work. The following are some of the changes observed in the new edition:

The text has, in some places, been re-written: in other parts, amplified by the results of recent researches. Small errors, transmitted from earlier editions, have been corrected in the revision. In several parts, the contents have been re-arranged with advantage. Fifty-six new illustrations have been inserted, and thirty-eight pages added to the size of the volume.

The Introduction, by Mr. Holmes, has been condensed, corrected and more fully illustrated by nineteen new microscopic sections. All of these, except two, are from Klein and Noble Smith. The handsomest of the new illustrations (fig. 70), representing a vertical section of the skin, is copied, without acknowledgment, from Prof. Hyde's Treatise on Diseases of the Skin. The original drawing was made for this work by Dr. H. D. Schmidt, the pathologist of the Charity Hospital, New Orleans. It was deemed so admirable as to merit graceful mention in the author's preface. Whenever copied, in simple justice, some acknowledgment is due.

The chapter on General Anatomy, as presented in the new edition, is concise, yet sufficiently comprehensive, and written up to date. Throughout the volume, special attention has been given to the revision of the minute anatomy, especially of the nervous system, the glands of the intestines, the stroma of the ovary, the Graafian vesicle, the retinà, the thyroid gland and the thymus.

In the chapter on the Nervous System, the cerebral convolutions and figures are more fully described and illustrated by new plates. The cranial nerves are mentioned in their numerical order, an arrangement more convenient for reference. The cervical, brachial, lumbar and sacral plexus are newly illustrated by diagrams. Such plates in a text-book are helpful to students.

In the chapter on the Organs of Digestion, there are nine new microscopic sections, showing the minute anatomy of glanular tissues: the description of the peritoneum rewritten, with new illustrations: and several excellent plates, showing a posterior view of abdominal organs and their relative position.

The Respiratory Organs are also illustrated by plates giving a back view. These and other similar plates supply a deficiency of former editions.

In the Surgical Anatomy of Femoral Hernia attention is attracted by a new plate, representing a transverse

section of the structures which pass beneath the crural arch, showing beautifully their relative position.

In the chapter on the Kidney, which was re-written in the previous edition, the tubuli uriniferi are further illustrated to better show the course of the tubes, their convolutions and spiral curves, and the irregular and collective tubules. This descriptive anatomy is re-written, and the difference in the epithelial cells in different portions of the tubes minutely and accurately described.

So, here and there throughout the volume, are found minor alterations and additions, which materially improve the book, but which can scarcely come within the scope of this review.

Appended to the present volume are Holden's Landmarks, Medical and Surgical, reprinted from the third English edition, with additions by Dr. William W. Keen. These landmarks contain the pith of practical anatomy.

In fine, Gray's Anatomy, as now presented, with its voluminous text, interpersed with short chapters on surgical anatomy, its beautiful plates, and the revisions of ten editions, may deservedly be regarded as one of the most useful of our standard works. The new edition is a decided improvement, and will surely maintain itself in professional favor. A. B. M.

Transactions of the Medical Society of the State of Pennsylvania, at its Thirty-fourth Annual Session, held at Norristown May 9, 10, 11, 1883. 8vo., pp. viii; 516.

The address of the President, Dr. William Varian, was upon matters and things in general, including cremation and vaccination.

He utters the following opinion, which is of particular interest at the present time: "An experience of nearly thirty years' use of humanized virus has shown me that it possesses great protective power against variola, together with certainty of action and freedom from any such effects as above described ['an unhealthy and poisonous sore':

'severe systemic disturbance;' 'the cicatrix in some cases became the seat of an erectile tumor, which resisted all measures of destruction and was finally removed by extirpation with the knife']. Less than ten years' use of animal virus has led me to believe that it is uncertain in its action, that its protective power is not so lasting, and that at times it is not free from a liability to produce disastrous effects.*

With regard to the education of medical men, he urges his hearers to "render efficient help in this direction" "by forbidding and discouraging your sons, brothers and acquaintances from commencing the study of medicine before they have undergone such careful preliminary education in the classics and natural sciences as will fit them to understand and fully master the intricacies of the art and science which they expect to make their life-long work." Excellent advice: if important, in a State whose oldest and best medical college already imposes a preliminary examination on those of its matriculants not possessing diplomas in literature or science, then doubly important in Louisiana, where it is not positively known by the faculty whether the graduates of its medical college can even read and write.

The address in Medicine was by Prof. James Tyson, of University of Pennsylvania, on the subject of Malarial Hæmaturia and Hæmoglobinuria. It appears that this grave form of malarial fever occasionally occurs in the middle States, though with less frequency and severity than in the southern States and in tropical countries.

The address in Surgery, by Dr. Alex. Craig; that in Obstetrics, by Dr. Geo. O. Moody; that in Hygiene, by Dr. Henry Leffman; that in Mental Disorders, by Dr. John Curwen: and a paper entitled Ophthalmological Observations, by Dr. Peter D. Keyser—are not, as usual, a *resume* of progress during the previous year, but consist of the views of the several authors on particular topics, and

* *Apropos* of the above, the writer was this day informed by a *confrere*, that he has now under treatment a well-marked case of small-pox, in the person of a child five years old, which he vaccinated himself successfully with bovine virus in March, 1881.

descriptions of cases for which space is wanting here to notice.

In a paper on Re-Vaccination, Dr. W. M. Welch fully recognizes its necessity for thorough protection, and insists that small-pox very rarely follows successful re-vaccination.

Dr. R. H. Chase, in an article on Insane Asylums, controverts the bug bear notion of the frequent consignment and detention of some persons in lunatic hospitals. This subject has latterly attracted undeserved attention, and seems to have succeeded *premature burial* as appropriate pabulum to a class of minds always hungering for a feast of horrors.

In a paper of four pages, on a Deformity which in certain cases follows Dislocation of the Foot outwards at the Ankle-Joint; Dr. E. A. Wood gives wholesome warning of danger of permanent disability from too early use of the injured limb, in walking, and of the necessity, in certain cases, of mechanical support to the joint for a prolonged period.

Prof. S. W. Gross forcibly advocates the entire removal of a carcinomatous breast, including the fascia of the pectoral muscles. He also insists that the axilla should be opened, with the view of clearing out infected glands, wheher they can be felt before the operation or not."

Dr. DeForest Willard, lecturer on Orthopædic Surgery in University of Pennsylvania, urges the importance of the earliest possible attention to club-foot, by oft-repeated massage and the wearing of elastic apparatus to counteract the contraction of the stronger set of muscles.

Dr. Samuel Ayres, Alienist and Neurologist to St. Francis Hospital, Pittsburg, considers a number of important topics in a paper entitled Our Asylums and Our Insane. He decidedly disapproves of the customary assumption of all the household details by the superintendent. It is clear that a man's force, like that of an inanimate machine, has limits, and that what is expended in the cultivation of crops, he selection and purchase of supplies, the erection and re-

pair of buildings and the keeping of accounts, cannot be left for application to the medical and hygienic wants of the inmates. He advocates increase of the medical and nursing staff of asylums and of more work from both; also great attention to the employment of inmates in suitable industries. Unjust or fraudulent commitments he regards as very rare, but advocates the creation of lunacy boards as a checks to such evil and to danger of too prolonged confinement. Like most other writers at present, he goes far in the advocacy of the non-restraint system of management. Just now our own opinion is, that this notion is rather over stretched for practical use. The wages of a hospital attendant could hardly command possession of all the moral virtues, and it must be admitted that there is a limit to human patience and physical endurance. The question arises, whether it is safer for the refractory and excited patient to be under the eyes merely, or if necessary in the hands of attendants, or in some suitable mechanical restraint which will neither tire nor lose temper.

Dr. R. J. Levis, on Surgical Expedients in Emergencies, gives some valuable hints for the substitution of familiar household implements and contents for the special surgical appliances which are often absent, like Balaam's sword, when most needed. If that hero had been as fertile in expedients as this writer, he might have carried his point, to the loss of his animal's fame in history.

Dr. J. M. Anders gives some interesting examples of the benefits derived by phthisical persons from the presence of house-plants in their rooms.

Following these papers come the reports of seventeen county medical societies—a peculiar feature in the transactions of the State Medical Society of Pennsylvania, and are to be commended for the encouragement given to constituent societies for the performance of creditable work.

On the whole, this volume compares very favorably with the publications of other State Medical Societies, containing much of real value and little of that kind of trash which

is so apt to be admitted, either for want of better material or through fear of offending members possessing local reputation and influence. S. S. H.

Transactions Mississippi State Medical Association, held at Meridian, April 4, 5 and 6. 8vo., pp. 139.

This Association, at this annual meeting, appears to have had an important and very successful session.

The total membership is over 300 and the attendance was 44—probably a good average in this portion of the country, where travel is difficult.

The by-laws were amended and the members were favored with several interesting papers.

The annual oration of Dr. G. W. Trimble on Intemperance, considered as a Disease, was more of a temperance lecture than a scientific article delivered to a body of scientific men. His sweeping denunciation of alcohol and his wish that "the time may soon come when alcohol in all its ramifications, both 'patent' and 'non-secret,' as a beverage or as a common substitute for medicine, shall be banished from every home in the land," are not likely to find many advocates in medical circles just now. In medicinal doses it is a food, a stomachic and a diffusible stimulant.

Malarial Hæmaturia, by Dr. J. E. Halbert, is a valuable production. He very truthfully remarks that mal. hæm. presupposes malarial intoxication of long standing, or in his words, "is identical with and the result of malarial toxæmia." He gives quinine hypodermically according to this formula—a ℥iv mixture:

℞ Quiniæ Sulph. ..... ℥iv
Acid Tartaric..... gr. L X
Aquæ..... ℥jjj
M. ft. Sol. S. one fourth at a time.

Following this is an able paper on the Hypodermic Use

of Sulphate of Quinine, by N. L. Guice, M. D. His success has been remarkable, as in sixteen years' experience with his method he does not remember to have had but "two or three trifling and painless abscesses."

His formula is—

℞ Quiniæ Sulph..... ℥i
Aquæ Pur..... ℥i
Acid Sulphur *dil.* mm. X L : or q. s. to dissolve
mix and filter.

His method is as follows:

"I select a region where the inner surface of the subcutaneous areolar tissue is loosely adherent to the subjacent tissues, usually the dorsal surface of the forearm or the front and lateral aspects of the thorax and abdomen. With the thumb and index finger of the left hand I elevate the skin and entire thickness of the areolar tissue. I then pass the needles of the syringe entirely through these structures at a right angle to the direction of the fold, carrying the point beneath the inner surface of areolar tissue and depositing the solution in the loose elastic tissue connecting the areolar with the subjacent tissues." He previously describes the anatomy of this tissue and how forcible distension is the cause of abscess. He does not allude to depositing solutions in muscle tissue—a favorite plan with some—nor in nerve tissue in the case of sciatica.

Space forbids an extended notice of other articles, which were possessed of much value.

The Louisiana State Medical Society will, it is hoped, emulate the good work of the Mississippi Associaiion, and next year publish, in as good form at least, its transactions.

J. H. B.

Medical Communications of the Massachusetts Medical Society, Vol. xiii, No. 11, 1883. Boston, p. 282.

No one can read this valuable report of the Massachu-

setts Medical Society without being impressed with the prosperity of this organization. Its receipts (treasurer's report) during the year 1883, amounted to $8,595 79, and the total disbursements were $7,056 37, leaving a balance of $1,539 42 in favor of the treasury. The invested funds of the Society amount to $32,420 17, yielding interest at the rate of four per cent. per annum. This needs no commentary. The annual discourse of the President, Dr. Amos H. Johnson, of Salem, entitled: "Nature guides best, when guided," is an elegant, highly suggestive and interesting composition. "A contribution to the study of the Tubercle-Bacillus, by Dr. D. Ernst, of Jamaica Plain, is an instructive résumé of the exhaustive literature on this all-absorbing topic. "Neurasthenia; its Causes and its Home Treatment," by Dr. Jas. Greene, of Dorchester, "Phlyctenular Disease of the Eyes," by Dr. Wadsworth, "The Use and Abuse of Ergot," by George L. Woods, of Springfield," "The Early Symptoms of General Paralysis of the Insane," by Wm. B. Goldsmith, of Danvers, and "Minor Injuries of the Spinal Cord," by Benjamin H. Hartwell, of Ayer, are all valuable contributions, full of originality, practical value and erudition.

Such reports as this are always highly prized and should be disseminated as widely as possible.

A Personal Narrative of Opium Addiction: The Treatment of Opium Addiction: The Curability of Opium Addiction: Clinical Notes on Opium Addiction. By J. B. Mattison, M. D.

We have received from the author the above entitled brochures, together with several opium-cure circulars, advertising H. C. Kane, of New York, who pretends to cure the opium habit by means of a secret nostrum.

Dr. Mattison himself is at the head of an establishment in Brooklyn for the cure of opium habitues: and while his aim is to advertise his own business, it must be admitted that in dealing with the subject he exhibits an unusual

degree of fairness and candor. It is hardly to be expected of any one, in these times of self-seeking, to present fairly all the difficulties and discouragements that attend the treatment of victims of the opium habit when his interest is subserved by inducing sufferers to submit to treatment.

It is not encouraging to present the truth as to the very small number who do not relapse, the necessity of cultivating the will, of changing the surroundings: in short, of a complete transformation of the patient and his circumstances, in order to prevent his return to the habit. Certificates of cure are easily obtained: opium eaters are everywhere ready to give them.

As for the wretched mountebanks like the fellow Kane, who make a business of plundering unfortunate victims by selling them opium at exorbitant prices, under pretense of treatment, no penalty allowed by the law is severe enough for them.

It is a sad commentary on law and justice that while the more honorable horse thief or pickpocket gazes behind prison bars or, under assumed names, dodges the police among alleys and hiding places, these beings, who rob not the well-to-do of their money, but the already miserable of their money and their precious time, are allowed to use the mails, the public press, and even medical journals, to promote their nefarious business. D. T. S.

[Through a mistaken impression, and in part owing to the absence of our regular business editor, Dr. Kane's advertisement was admitted to our advertising columns.—Eds.]

The Roller Bandage. By William Barton Hopkins, M. D., Surgeon to the Out Departments of Pennsylvania, Episcopal and University Hospitals: Assistant Demonstrator of Surgery in the University of Pennsylvania: Fellow of the College of Physicians of Philadelphia, etc. With seventy-three illustrations. Philadelphia: J. B. Lippincott & Co., 1883. Pages, 95.

The proper or improper application of a bandage will frequently decide the opinion of the laity as to the merits

of a professional man: therefore, a careful study of this art in order to acquire dexterity and gracefulness in its practice is an imperative necessity in every medical student's surgical training. In this book Dr. Hopkins devotes ninety-five pages to the pictorial and textual teaching of the methods of applying the roller bandage. He deals very briefly, but plainly, with the spiral bandages, circular, spiral, oblique spica, etc: with the head bandages, and with those applied to the upper extremity, trunk and lower extremity. In order to impress the subject more deeply in the student's mind, the author pictorially illustrates every detail of the bandaging process. Each bandage, according to the author, was applied to a living model, and whenever the roller pursued a course which he has found, in his association with students, was the cause of any uncertainty, it was at once photographed. "In this way the course traversed by the roller in the most complex dressing has been made sufficiently plain to enable the student to apply it for himself almost unaided by the text." The seventy-three illustrations, which are very artistically and originally prepared, fully attest the truthfulness of the preceding statement. Though the subject is quite comprehensively dealt with in the clinical texts on surgery followed by most students, we cannot justly say that Dr. Hopkins has written a superfluous book. Students, when assigned to surgical wards, will no doubt find it an invaluable assistant.

A History of Tuberculosis from the time of Sylvius to the present day, being in part a translation, with notes and additions, from the German of Dr. Arthold Spina, containing also, an account of the researches and discoveries of Dr. Robert Koch and other recent investigator. By Eric E. Sattler, M. D. Cincinnati: Robert Clark & Co., 1883.

In compiling the history of tubercle from the days of Sylvius (1680) to the present day, Dr. Spina and his able translator and commentator, Dr. Sattler, have done the

medical world a most estimable service. Ever since the etiology and pathology of pulmonary consumption have been made the subject of study, it has served as the arena for the most fiercely contested and frequently repeated pathological tournaments. So profuse have been the outpouring of classical writers on this subject and so complicated have they made the historical study, that even a comprehensive notion of the direction of medical thought in past epochs was scarcely attainable. Drs. Spina and Sattler, however, present in a compact form all that is really worth knowing in either the past or present history of this specialty. The seven chapters of the book embrace the history of (1) the Pathological Anatomy and Histology of Tubercles, (2) Inoculation experiments, (3) Inhalation experiments, (4) Feeding experiments, (5) Experiments with pure tubercle virus, (6) Koch's experiments, (7) Investigations since Koch's discovery and Spina's labers, etc. The arguments pro and con in regard to the merits of Koch's investigations are very fairly presented throughout, the author having culled his information from the most direct and authentic sources. As an evidence of the impartiality with which he deals with the subject, or at leas- of the wise and conservative manner with which he studies the controversy, we will quote his concluding paragraph.

"We are yet on the threshold of a great discovery, and it will require constant inquiry, patient investigation, and deep research, before the true relations of bacilli to tubercle, and the part they play in the pathology of their causation, are fully determined."

It is unnecessary to add that Dr. Sattler's work is performed in that careful style which will commend it to all persons desirous of full information on the vital question it discusses, and we are certain that no one can consider himself *en courant* with what has been said on this great topic, unless he has perused this book.

Publications Received.

Index Catalogue of the Library of the Surgeon-General's Office, U. S. Army. Vol. IV. E to Fizes. Washington: Government Printing Office, 1883.

Quarterly Epitome of American Practical Medicine and Surgery, Collateral to Braithwaite's Retrospect. Part XV. September.

Diagnosis of Ovarian Tumors. By Edwin Boerk, A. M., M. D.

Medical Education and the Regulation of the Practice of Medicine and Surgery in the United States and Canada. Illinois State Board of Health, 1883.

Transactions of the Medical and Chirurgical Faculty of Maryland. 85th Annual Session. Baltimore: April, 1883.

Insanity Considered in its Medico-legal Relations. By H. R. Buckham, A. M., M. D. Philadelphia: J. B. Lippincott & Co., 1883.

Transactions of the Colorado State Medical Society. 1883.

Report of First Annual Proceedings of the Louisiana State Pharmaceutical Association. New Orleans, 1883.

Remarks on the Importance of Having Trained Nurses. By S. D. Gross, M. D., LL. D., D. C. L. Reprint from the *Medical News.*

United States Salary List and Civil Service Law. Prepared under the direction of Henry N. Copt, Attorney and Counsellor at Law. Washington, D. C.

Transactions of the American Otological Society. Sixteenth Annual Meeting. Vol. 3, part 2.

Chemistry; General, Medical and Pharmaceutical, including the Chemistry of the New United States Pharmacopœia. By John Attfield, F. R. S., etc. 10th edition. Philadelphia: Henry C. Lea's Son & Co., 1883.

Practical Treatise on Impotence, Sterility and Allied Disorders of the Male Genital Organs. By S. W. Gross, A. M., M. D., etc. Philadelphia: Henry C. Lea's Son & Co.

Woman as a Physician. By Eugene F. Cordell, M. D., Professor of Materia Medica and Therapeutics in the Woman's Medical College of Baltimore.

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The Treatment of Wounds as based on Evolutionary Law. By C. Pitfield Mitchell, M. R. C. S. New York: I. H. Vail & Co., 1883. Pages, 58.

Anatomy Descriptive and Surgical. By Henry Gray, F. R. S. A new American from the Tenth English edition, to which is added landmarks, medical and surgical, by Luther Holden, with additions by William W. Keen, M. D. Philadelphia. Henry C. Lea's Son & Co., 1883. Pages 1023, 8vo.

MISCELLANEOUS ITEMS.

The efforts being made by the Sanitary Association to vaccinate the population of this city in order to protect its population from the evils of impending variolous epidemics are meeting everywhere with gratifying success. The sanitary inspectors and sanitary officers of the association have been duly commissioned by Mayor Behan and commenced work last Monday (October 22d). The sanitary census, according to Dr. Watkins, the director of the association, has already developed some interesting information relative to small-pox, as evidenced by the following statistics derived from four squares in the First District:

Three hundred and sixty-six white vaccinated persons were found, of whom 16 have had small-pox. In every instance the severity of the disease has been mitigated, and from appearance of cicatrices pronounced varioloid by the inspector. Twenty-two whites were found unvaccinated, and 17 of these have had small-pox. One hundred and fifty-nine colored persons were found who had been vaccinated: of these 8 have had varioloid. Thirty-nine colored persons were found who had not been protected by vaccination, and every one has had small-pox. To summarize, of 325 vaccinated individuals 24 have had modified small-pox; of 61 unvaccinated persons 56 had suffered from small-pox.

The sanitary inspectors offer vaccination and revaccination at every house visited, and have established offices for gratuitous vaccination in various districts of the city. The great and noble work that is now being done by this magnificent organization, added to the imperishable benefactions that it has already bestowed upon this community, amply prove its practical utility and, in fact, the absolute need of its existence. Let it continue in its good work and the people of New Orleans will soon acknowledge it as the supreme arbiter of its sanitary destinies.

Capt. R. M. Schuffeldt of the Medical Corps, U. S. Army, has been making a scientific exploration of the vicinity of New Orleans, and has forwarded to the Southern Institution a collection of some three thousand specimens of vertebrates and invertebrates of the region, together with the contents of an Indian shell mound situated back of Carrollton. Among the vertebrates are some very uncommon forms of bats, and other rare species.—*Popular Science Monthly.*

The St. Louis College for Medical Practitioners will inaugurate its fourth session November 5th, 1883. The names of some energetic and distinguished gentlemen are on its list of instructors, a fact which would sufficiently insure the prosperity of this institution.

The London "Academy" says, that "a duel took place the other day at Pesth between two noblemen, one a son of Count Andrassy, which arose out of a quarrel about the truth of Darwinism. The supporter of Darwinism, we regret to hear, was severly wounded." From which me may conclude that this opponent now believes in the doctrine of the survival of the fittest.—*Popular Science Monthly.*

It is reported that four hundred persons are prostrated by trichinosis in ten villages in Saxony. Fifty of the sufferers are in a hopeless condition. Deaths from this disease are occurring daily.

Generous Recognition—It is said that the Emperor of Brazil has given Prof. Lacerda $20,000 for his discovery of permanganate of potassium, hypodermically injected, as an antidote for the bite of poisonous snakes.—*Medical News.*

Koch, the cablegrams say, has found another bacillus in the stools of cholera patients. No doubt the great Teuton is working hard to find something æthological out there in Alexandria, but is not a dangerous *empressement* evident in this hurry to proclaim the discovery? We fear that the political dissensions of nations will not even respect the neutrality of science but plunge it into hasty or at least premature conclusions, through the sectional or national prejudices of its leaders. Let us hear next what the Pasteur commission will have to say on this matter—it is certain, however, that a savory repast is being prepared for hungering germ-hunters.

The Medical Department of the University of Louisiana will begin its regular course November 1st. The preliminary lectures on miscellaneous topics commenced September 15th. Professors Richardson, Bemiss, Logan, Lewis and Jones, attended their wards in the Charity Hospital, and initiated the annual course of instruction, with the assistance of their respective chiefs of clinic—Drs. Parham, Underhill, Jno. Bemiss, Stanhope Jones and Matas. Dr. A. B. Miles and his assistant, Dr. P. B. McCutchon, have been demonstrating practical anatomy since September 1st. The session has begun with a very fair concourse of students. The lectures of the Professors have been, as usual, full of interest and replete with original information.

The wards of the great Charity, with their immense stores of material, have furnished, and will continue to supply, all the pabulum requisite to perfection in clinical instruction. When Professors Chaille and Elliot return (and they are expected daily), the Faculty corps will be completed and the full machinery of education will be set in motion for the next five months.

Drs. J. H. Bemiss, Parham and Underhill announce that they will begin a regular quiz course in November, with the opening of the regular session of the Medical Department of the University of Louisiana. There will be one quiz a week on all the lectures delivered by each one of the Professors, during that week, in all the departments, excepting chemistry. The gentlemen conducting this quiz are well known to the alumni of the University, and their excellent qualifications will no doubt insure them the success which they so eminently deserve.

We are pained to announce the death of one of the members of the French Sanitary Commission who so generously offered to go to Egypt to study the epidemic of cholera.

It was at the time when the plague had ceased its ravages, and when the young *savants*, their investigations ended, were preparing to return to France, that Mr. Thuillier was suddenly seized with, and succumbed to, an attack of cholera. Formerly a pupil of the Normal School, and attached to the laboratory of Pasteur, Mr. Thuillier was Agregé of the University since 1880. His obsequies were held on Wednesday, Sept. 19th, at Alexandria, in the midst of a large concourse of natives and Europeans, among whom was noticed, above all, the entire English medical corps.—*Gazette des Hopitaux*, Sept. 22d, 1883.

Dr. L. Duncan Bulkley, the eminent dermatologist, will begin his seventh course of lectures on Diseases of the Skin, in the Pathological Amphitheatre of the New York Hospital, 7 West Fifthteenth-street, New York City. The course will consist of twenty lectures, and will be free to practitioners of medicine and medical students.

Dr. Wm. Stadler, of Port Sullivan, Texas, writes to us that he has had occasion to try the virtues of the potassium permanganate in the treatment of snake bites. A young negro, October 20, was bitten by a moccasin snake. The doctor saw him ten hours after the accident. The patient was delirious from a large quantity of whiskey administered. It was so long after the bite had been inflicted that Dr. Stadler had no hopes of recovery, yet he determined to try potassium permanganate, as recommended by Lacerda, of Rio Janeiro. This agent was administered in solution by a hypodermic injection into the sound arm. The effect was almost instantaneous, in relieving the delirium from alcohol, and producing a refreshing sleep. Some ligatures that had been placed above the wound were cut and the patient allowed complete rest. When seen the next morning he was all right with the exception of a considerable swelling of the afflicted arm. The patient has been heard from since and is doing well. "Morphine, bromide of potassium or chloral, I am certain," says Dr. Stadler, "would never have stopped the furious excitement from too much whiskey, more quickly and effectually than the potassium permanganate."

We are in receipt this month of *two* copies of the *Texas Courier-Record of Medicine*. Now, why the editors of this journal should favor us with an extra copy of the October number we are at a loss to conjecture, unless it be that after appropriating bodily from the New Orleans Medical and Surgical Journal a number of articles without giving us credit for the same, they may have felt some stings of conscience and endeavored to make amends by favoring us with *two* copies instead of the customary *one* in exchange. We are always pleased to see our labors appreciated, but when the product of our brains is taken in this manner it is but just that we should receive credit therefor.

True, the articles, with two exceptions, are not original; but, when we go to the trouble of translating from foreign journals and preparing condensations from articles in American journals, we do not like to see those articles reproduced bodily without the proper acknowledgment.

We trust that the *Courier-Record*, as it grows older, will mend its ways.

A Remedy for the Hoarseness of Speakers and Singers.—Dr. Corsan recommends a small fragment of borax, weighing from 15 to 20 centigrames, to be dissolved in the mouth. It produces a hypersecretion of saliva, and clears the throat.—*Revista de Ciencias Medicas, de Barcelona.*

"We have the authority of a member of our State Board of Health for saying that there are on file in this office not less than two hundred instances of graduates in medicine who hold this dubious evidence of learning, who cannot spell diploma. We have been furnished from this source with seven different and incorrect ways of spelling this word of seven letters. They are as follows: diaploma, diplomy, diplomer, diplomah, diaplemy, diapluma, dipluma. It seems a marvel that these ingenious orthographers have all agreed to commence the word with a D. The sad comedy of this subject is worthy of the pencil of a Hogarth. Fancy the alma maters of these two hundred ignorant persons, solemnly conferring upon each of them the degree of Doctor of Medicine in consideration of his having complied with the requirements of our college, and given ample evidence of his *learning* and *skill*" *!!—Report of Committee on Medical Education, Chicago Medical Society. Chicago Medical Journal.*

In the *American Journal of Neurology and Psychiatry*, Prof. Burt G. Wilder, in describing the brain of a cat, says: "The cœliæ are lined by endyma. The cœlian boundaries are readily recognized, excepting the dorsal limits of the diacœlia. Just dorsad of the habena is an irregular line, the ripa, indicating the line of rupture of the diatela or roof of the

diacœlia * * * * * *. The fornix was divided just dextrad of the meson, so that the mesal crista does not appear in the figure. The less clearly defined light lines curving dorso-caudad from this point represent the natural free dorsal margin of the fornix, which is continued laterad into the fimbria."

Just so! Exactly!! Wonder we never thought of it before. The extreme lucidity of this description is marvellous, but we fear that a new medical lexicon has become absolutely necessary for the purpose of elucidating the "dorsad of the habena" and locating the point just "dextrad of the meson."

Dr. Wm. Porter, of St. Louis, discusses "cremation in the nineteenth century" in a very able and thoughtful address, delivered before the Tri-State Medical Society, as president of that body. Our editorial on this subject had unfortunately been sent to press when the article (published in the September number of the *New England Medical Monthly*) was brought to our notice; otherwise we would have given it the prominent attention it deserves. Dr. Porter, though differing with us in some minor issues, agrees with us in the main point we argue, i. e., that in a city with the specific conditions of New Orleans, cremation of the dead is a highly desirable procedure from the sanitary standpoint. He says: "It is not likely that incineration will entirely take the place of burial: it need not. This much, however, I hold: 1st. That under certain circumstances cremation should be the mode of disposing of the dead—as for reasons heretofore given, during a violent epidemic of cholera, of small-pox or of yellow fever, or in large cities where often the cost of a funeral becomes a burden upon the living, or in places where the ground is unfit for grave-yard use, as in some of our *Southern* cities (undoubtedly New Orleans is referred to). 2d. There is nothing in sacred history or modern law opposed to cremation, while much in sanitary science, as far as understood, commend it." We consider the above a valuable and authoritative endorsement of the action of our grand jury in regard to this question and of our position, as sustained in other columns of this Journal.

Quebracho in Dyspnœa.—Dr. Mariani, from recent experimental and clinical studies of the action of quebracho, draws the following conclusions:

1. Quebracho is a medicine whose principal effects are shown by a diminution of the number of the respirations and cardiac contractions.

2. Its action seems to be especially concentrated on the circulatory centre, on which it has a tonic action in regulating the contractions, either directly or by the intermediation of the nervous system.

3. Quebracho may be considered as the only medicine which has a manifest antidyspnœic action. It combats the dyspnœic symptom alone, and without the aid of other medicines.

4. It is highly probable that the symptomatic dyspnœa of acute affections of the thoracic organs may be amenable to quebracho.—*Journal de Med. de Paris*, August 25th, 1883. *Medical News.*

The following are the conclusions summarized by Dr. David Young, of Rome, Italy, in a paper on the administration of quinine, in the *London Practitioner:*

1. Never to give quinine in antipyretic doses in cases where the bowels are confined and the secretion of urine is scanty.

2. In cases were it is being administered and an increase of dose is desirable, this may be safely done if the skin, bowels, and kidneys maintain their normal functional activity.

3. In many cases of remittent or intermittent fevers, the combination of the drug with chloride of ammonium or a salt of potash or soda is likely

to be more easily tolerated as well as more useful than if it be administered in a pure form.

4. During the administration of quinine, should a headache come on or increase in intensity, the case requires the most careful attention.

The Seat of Urea Formation.—Dr. Schroeder has recently performed some interesting experiments on this subject (*Kleb's Archiv*, t. xv). He constructed an apparatus by means of which the blood of the animal experimented upon was caused to flow through certain organs, the liver, kidneys, etc. Notwithstanding a continuous circulation of two hours or more through the liver, the blood always contained the same amount of urea at the end of the experiment. The liver is therefore, in Schroeder's opinion, the urea forming organ *par excellence*.—*Gaz. Hebdom. Cincinnati Lancet and Clinic.*

Arbutin.—The *Med. Times and Gaz.*, July 14, 1883, says: Arbutin is obtained from bearberry leaves—*Uvæ ursi folia*. The therapeutics of the infusion of bearberry have long been known, and Dr. H. Menche has now given his experience of arbutin as a remedial agent (*Centralblatt fur Klin Med.*, No. 27). He finds that it acts in many cases as a valuable diuretic. Large doses may be administered without any ill effects. It passes out in the urine partly in the form of hydrochinon, which is closely allied chemically to phenol. Urine containing hydrochinon becomes, by standing, of an olive-green color, just as happens in carboluria. Arbutin is of service in urethritis even of a specific nature. Brieger has employed a solution of hydrochinon as an injection in gonorrhœa, but the internal administration would seem to answer the same purpose. Arbutin is a glucosate (a compound of glucose with an acid—*e. g.*, tannin), and occurs as fine white stable acicular crystals soluble in water, of neutral reaction, odorless, and of slightly bitter taste. The best mode of administration is in the form of powder dissolved in a tablespoonful of water. Patients did not complain of its taste.—*Quart. Comp. Med. Science.*

Salicylic Acid in the Sweats of Phthisis.—*Med. Times and Gaz.*, June 20th, 1883, tells us that Dr. Landouzy employs a powder consisting of ten parts, by weight, of salicylic acid to ninety of talc or starch. Those parts of the body which are habitually the most frequent seats of the sweating are powdered twice a day. Almost always it gives temporary relief; and sometimes the amelioration persists for some days after the application has been discontinued.—*Journal de Therapeutique*, May 25. *Quart. Comp. Med. Science.*

Turpentine in secondary syphilis, and in phagedenic sores following fever, is highly recommended by Deputy Insp.-General Brinsley Nicholson, M. D., in *Medical Times and Gazette* of September 1st.—*Louisville Med. News, Sept.* 22.

NECROLOGICAL.

THE LATE SURGEON-GENERAL CRANE, U. S. ARMY.

At the regular meeting of the New Orleans Medical and Surgical Association, held October 13th, Surgeon Harvey E. Brown, U. S. Army, made a brief address, eulogistic of the life and services of the late Surgeon-General [illegible] Crane, U. S. Army, who died in Washington, October

10th. Dr. Salomon moved, and it was unanimously carried, that the address be referred to the committee of publication with the cordial endorsement of the Association.

The following are the remarks of Dr. Brown:

"*Mr. President and Gentlemen of the Association:*

"I rise to beg the privilege of addressing you a few words of eulogy in memory of one of our profession who has closed his earthly career during the past week; one, who, although occupying the highest position under the Government attainable by a medical man, was so modest and unassuming, so indifferent to the applause of others, apparently so oblivious of his own great gifts, that he was but little known to the profession outside of the corps of which he was the loved and honored head. I refer to Charles H. Crane, the Surgeon General of the United States Army.

"General Crane was a native of the State of Rhode Island, but his father was an old colonel of artillery and his early years were passed in various army garrisons, where he doubtless imbibed that fondness for the military portion of his chosen profession as well as that strictness of discipline which were his chief characteristics in after life.

"Soon after obtaining his degree he entered the army as Assistant Surgeon and did good service in the closing scenes of the Mexican war. The subsequent years were chiefly passed in the varied duties of a medical officer on the frontier, in garrison service, in Indian campaigns and scouts, always increasing his reputation as a faithful and energetic officer, a skilful surgeon, a learned and humane physician. The breaking out of the war found him on duty in New York, whence he was soon transferred to more active employment, and when the want was felt of great executive ability in the central office, he was detailed for duty as senior assistant to the Surgeon-General at Washington, and it is not too much to say that a large portion of the wonderful efficiency attained by the medical department in the last two years of the war was due to his unflagging industry, his keen insight and his wise counsel. On the reorganization of the army in 1866, he was appointed Assistant Surgeon-General, a position which he held for upwards of sixteen years, and it is no derogation to the great abilities of the lamented Barnes to say, that, to his great executive talent, aided by such coadjutors as Woodward, Otis and Billings, the Medical Department owes the proud position which it occupies to-day in the heart of the profession at large. On the retirement of General Barnes in 1882 he became his successor, and the Medical Department looked forward to a long career of prosperity and usefulness under his judicious management. But it was willed differently by the All-wise Disposer of events. In the full prime of a vigorous manhood—with all his great intellectual faculties unimpaired—with his ever active mind still bent on schemes for the improvement and advancement of the service at large and the corps of which he was the head—he has passed away, leaving behind him—I was going to say—nothing but a memory—but I should rather say, an imperishable monument in the corps to whose welfare he had devoted the best energies of his life. And this without self-glorification, without any resort to those petty acts which baser minds find it necessary to use, to bring themselves before the public gaze. No reporter interviewed him—no Gazette or Journal chronicled his views

or opinions—but he went steadily on in the path of duty, all his work and all his life devoted to the corps in which that life had been passed, caring nothing for adverse criticism, so long as he had the approbation of his own conscience and furthered the best interests of his department.

"Those who knew him can well imagine, that he bore the agonies of the closing hour more than bravely; that he bore them cheerfully; that 'when he was struck he gave the ring of the true metal and so died.'

"Mr. President and gentlemen: Every man is great who greatly lives and grandly dies. I feel how inadequately I have set forth the excellencies and virtues of this truly great man; but I must not trespass longer on your time. I have thought it but right and proper that I should say something, for,

"He was my friend, faithful and just to me,"

and having been such, I lay this humble tribute on his untimely grave."

FACETIÆ.

The Kiss Psychologically Considered.—Social circles and the reflecting portion of the medical profession (that is all of it) have been very much interested in the statement that, at a recent wedding at Wilkesbarre, Pennsylvania, the bridegroom immediately after the wedding ceremony gave his bride, as is often done, the familiar kiss, and then wrenching a leg from a chair proceeded to assault every one present—old and young, men and women, boys and girls—the bride only being excepted. The company fled in dismay, but this not protecting them, there was organized a corps as gallant as the "Old Guard" at Waterloo, and this, charging upon the bridegroom, captured and then confined him. He was found to be insane or delirious. The question to the psychologist is this, What was the cause of that condition? Was it that this man had never before kissed a woman, and was so moved that rapture became delirium? Or is it that at times the kiss thus bestowed brings on a transport bordering on maniacal excitement? If either assumption be correct, it is evident that the medical profession is called upon to provide a remedy absolute and complete for so dangerous a contingency. If kissing a woman, or even a bride, for the first time has such an effect, there is but one rational remedy for it, and this is, that a man should get himself accustomed to such physiological commotions by kissing women as often as he has an opportunity for so doing!! Such medical advice must command professional confidence, as it represents the most efficient mode of practice, that is, not the cure of this form of mania, but the prevention of it. And the prescription, too, is such as to commend itself to the good taste and best judgment of every physician.

This young man, it is needless to say, was neither a physician nor a clergyman.—*Gaillard's Journal.*

Incidents of a highly ludicrous nature frequently occur in the examination of patients, both by doctors and by students. A professor, on one occasion, was lecturing to his class on the means of diagnosing disease by the external appearance, face, and other details of the patient. Expressing his belief that a patient before the class afforded an example of the practice in question, the professor said to the individual, "Ah, you are troubled with gout!" "No, sir," said the man; "I've never had any such complaint!" "But," said the professor, "your father must have had gout!" "No, sir," was the reply; "nor my mother either!"

"Ah, very strange!" said the professor to his class; "I'm still convinced that this man is a gouty subject. I see that his front teeth show all the characters which we are accustomed to note in gout." "Front teeth?" ejaculated the patient. "Yes," retorted the professor; "I'm convinced my diagnosis is correct. You have the gout, sir!" "Well, that beats everything," replied the man; "it's the first time I've ever heard of false teeth having the gout! I've had this set for the last ten years!" The effect of this sally, on the part of the patient, upon the inquisitorial professor and his students, may be better imagined than described.—*College and Clinical Record.*

An illustration of stinginess is cited by an Arkansas editor, who knows a man who talks through his nose in order to save wear and tear on his false teeth.

"Have you ever tried the faith cure?" asked a long-haired, sallow stranger, addressing a gentleman in a street car. "I have," was the reply. "Do you believe in it?" "I do." "May I ask, then, of what you were cured!' "Certainly; I was cured of my faith."—*Medico-Legal Journal.*

A student was being examined in anatomy, but failed to answer a very simple question. In an instant all his years of study become a blank. "John," exclaimed the professor to his servant, "go to the stable and bring me some hay for this ———." "Bring enough for *two*," was the reply, before the enraged teacher could name the animal with long ears. The subsequent examination was severe, but it demonstrated that the student needed no hay.—*Medico-Legal Journal.*

Sounds from the Consulting-Room.—"How long will it take you to cure me, doctor?" "Well, Mr. Blank, I think you can get back to your desk at the bank in about a month, but you will have to remain under treatment for several years." "But you mistake; I am not Mr. Blank, the banker, but Mr. Blank, the letter-carrier." "Oh, that alters the case. There is nothing the matter with you but a little biliousness. You will be well in a month."—*Ibid.*

Waste Nothing.—A Spanish magistrate lately issued this proclamation: "All articles in the shape of wines, groceries and provisions, which, upon examination and analysis, are proved to be injurious to health, will be confiscated forthwith and distributed to the different charitable institutions."—*National Druggist Journal. Ibid.*

Italian English.—The proprietor of the Hotel de Bellevue at Pompeii, as a means of attracting English custom to his house, has issued an advertisement couched in the following extraordinary terms: "That hotel open since a few days is renowned for cleanness of apartments and linen, for exactness of service and for excellence of the true French cookery. Being situated at proximity with regeneration, it will be propitious to receive families whatever which shall desire to reside alternately into this town to visit the monuments newly found and to breathe thither the salubrity of the air. The establishment will avail to all the travelers visitors of that sepult city and to the visitors (willing to draw antiquities) a great disorder and expensive contour of the Iron-whay. People will find equally thither complete assortment ot strange wines, and of the kingdom, hotel and cold baths, stables and coach-houses, the whole with very moderate prices. Now all the application and endeavors of the host will tend always to corspond to the taste and desires of their customers, which will acquire without doubt to him into that town the reputation whom he is ambitious."—*The Caterer*, London. *N. Y. Medical Record, September* 22.

CARMINA MEDICA.

A MEDICAL MELODY.

CHAMOMILE.

(By A Lay Muse.)

I.

When sampling turtle, duck and fish,
And each well-known appointed dish,
In halls of revel,—feast and wine,—
Graced by keen wit, and song divine,
I quaff most lustily, and smile—
To-morrow I'll take chamomile.

II.

Ah, wizard 'gainst all ills and woes,—
Fate's cruel buffetings and blows,
And gloomy thoughts that will intrude,
In every guise, and every mood—
When touched by sombre spleen and bile—
I take a cup of chamomile.

III.

I take the chalice and, to the Gods,
I offer gifts with voiceful lauds,
And as I silent taste and sip,
Enchantment lingers on my lip—
And rhythmic measures float the while,—
Between me and my chamomile.

IV.

Away with lotion, drug and pill;
James Paget's art and Virchow's skill;
And all the nostrums that appear,
To torture us poor mortals here,
No therapeutic songs beguile—
My sober faith from chamomile.

V.

At times within this rambling brain,—
The German spirit chants its strain,—
And seems to sway its triumph hour,
While whispering of its golden flower,—
But I, a child of Grecian Isle,
Prefer the Roman chamomile.

VI.

A friend of mine once crossed in love,
Came my advice to claim and prove,—
I looked him up—I looked him down,
I analyzed with thoughtful frown;
My remedy for love's strong wile—
Is drown yourself in chamomile.

ERRATUM.

On page 386, 12th line from bottom, read *cleanthes* for *charicles*.

METEOROLOGICAL SUMMARY—SEPTEMBER. STATION—NEW ORLEANS.

DATE.	Daily Mean Barometer.	Daily Mean Temp'rature	Daily Max. Temp'rature	Daily Min. Temp'rature	Daily Rain-fall, inches.	GENERAL ITEMS.
1	30.109	82.3	88.7	75.5	....	Highest Barometer, 30.212.
2	30.143	81.8	87.7	77.0	....	Lowest Barometer, 29.820.
3	30.105	81.0	87.7	75.8	....	Monthly Range of Barometer, 00.392.
4	30.071	81.3	87.0	74.7	....	Highest Temperature, 90.5.
5	30.074	82.5	89.0	77.0	....	Lowest Temperature, 63.0.
6	30.023	82.7	89.3	74.6	....	Greatest daily range of Temper't., 17.5.
7	29.955	83.5	90.5	75.3	....	Least daily range of Temperature, 9.7.
8	29.951	83.3	89.5	75.3	....	Mean daily range of Temperature, 13.5.
9	29.985	83.5	89.6	72.7	....	Mean Daily Dew-point, 66.6
10	30.017	80.3	87.1	72.5	....	Mean Daily Relative Humidity, 67.0.
11	29.985	81.9	88.2	76.0	....	Prevailing Direction of Wind, S.-E.
12	29.949	80.8	85.5	74.0	....	Total Movement of Wind, 4006 Miles.
13	29.952	78.0	83.5	72.0	....	Highest Velocity of Wind and Direction, 17 Miles, N. & S.-W.
14	30.027	78.7	86.2	72.0	.23	
15	30.040	79.3	87.0	74.1	....	No. of foggy days, —.
16	29.965	80.3	85.8	75.4	....	No. of clear days, 10.
17	29.909	81.3	88.0	74.3	....	No. of fair days, 17.
18	29.904	81.9	89.0	74.2	....	No. of cloudy days, 3.
19	29.976	79.7	87.8	72.9	....	No. of cloudy days on which rain fell, 3.
20	29.980	80.3	87.5	73.8	....	Dates of Lunar Halos, 15" 16" 19"
21	29.891	77.2	81.0	71.3	.02	
22	29.861	75.3	81.8	67.9	....	
23	29.920	74.0	80.2	67.5	....	
24	29.982	72.2	97.5	66.6	....	
25	30.060	73.3	80.5	63.0	....	
26	30.132	75.3	83.2	67.0	....	
27	30.175	74.3	82.0	64.7	....	
28	30.140	77.3	84.0	69.5	....	
29	30.121	80.0	85.7	71.1	....	
30	30.074	80.3	88.0	71.3	....	
31	.....	....	....	....	....	
Sums	.....	....	....	....	.25	
Means	30.016	79.4	86.0	72.5	....	

COMPARATIVE TEMPERATURE.

1873	84.2	1879	83.0
1874	83.9	1880	81.3
1875	79.3	1881	82.8
1876	82.2	1882	77.6
1877	83.1	1883	79.4
1878	83.5		

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	8.30	1879	10.44
1874	4.82	1880	4.60
1875	8.61	1881	4.21
1876	4.44	1882	1.59
1877	4.54	1883	6.25
1878	5.31		

M. HERMAN, *Signal Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM SEPTEMBER 29TH, 1883, TO OCTOBER 20TH, 1883, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia	Total Mortality.
September 29.....	0	16	11	6	0	138
October 6.....	0	26	13	6	6	147
October 13.....	0	13	19	3	2	135
October 20.....	0	13	15	3	5	114
Total.....	0	68	58	18	13	534

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NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

DECEMBER, 1883.

ORIGINAL PAPERS.

The Wearing Out of Vaccine Protection and the Efficacy of Re-Vaccination.

By W. M. WELCH, M. D.,

PHYSICIAN IN CHARGE OF THE MUNICIPAL (SMALL-POX) HOSPITAL, PHILADELPHIA.

[Read before the Pennsylvania State Medical Society and republished in its Transactions.]

The immortal Jenner not only believed in the identity of small-pox and cow-pox, but even entertained the fanciful notion that cow-pox in the animal was the original or parent form of small-pox in man, and that the disease in man has been converted into its present severe and malignant form by time and unfavorable circumstances. This theory of course very naturally led to the conclusion that vaccinia was in reality small-pox communicated to man in its primitive and mildest form. Since the time of Jenner several experimenters have undertaken to prove the identity of the two diseases by an attempt to transform variola virus into vaccine in the body of the bovine animal, but the results have been very various. It seems very probable, however, that Thiele, Ceely, Badcock, and more recently, Voigt, of Hamburg, have succeeded in the experiment, but the vast majority of experimenters have failed.

I do not propose to discuss here the vexed question concerning the identity or common origin of variola and vaccinia, but wish merely to direct attention to the fact that it was the belief in their identity which at one time led to the almost universal opinion, and which still prevails to a considerable extent, that vaccinia, like variola, can, as a rule, be communicated to a person but once in a lifetime.

Jenner very well knew, from his close study of small-pox for a period of thirty years and over, that second attacks of the disease were very rare; this fact, together, as he says, with his personal observation, led him to regard the protection conferred by vaccination as permanent: or, as he stated, as complete and permanent as that afforded by once undergoing small-pox. In his third publication (year 1800), he refers to this question by saying, "Some there are who suppose that the security from the small-pox obtained through the cow-pox will be of a temporary nature only. This supposition is refuted, not only by analogy with the habits of diseases of a similar nature, but by incontrovertible facts, which appear in great numbers against it." The same doctrine was authoritatively reiterated, in 1839, by a committee of the Provincial Medical and Surgical Association, which concluded their remarks on the continued protective power of vaccination by saying, "we hold it to be proved beyond all doubt, that the same laws which govern human small-pox apply, *mutatis mutandis*, to cow small-pox." The committee denied that vaccination, duly and efficiently communicated to man, loses any of its influence by time. Also, in 1843 (I believe it was), a very talented commission of Paris, expressly appointed to consider the question of permanent security, reported against the necessity for re-vaccination.

Such was the pleasing, but illusory doctrine promulgated by Jenner, and long entertained by the profession; but time and greater experience have developed an accumulation of facts which lead to a very different conclusion That vaccination in infancy, however perfect, cannot be

depended on to afford protection against small-pox throughout the lifetime of an individual, is now amply attested by experience and proved by statistics. Nevertheless, I am convinced that there are yet very many physicians who, partly from early teaching, and partly, perhaps, from an unwillingness to see vaccination shorn of any of its original splendor, still adhere to the belief that genuine vaccinia in infancy, followed by a well-defined and characteristic cicatrix, affords the greatest possible protection through life, and that re-vaccination in a person presenting such evidence of protection is unnecessary and not to be recommended. Now, I am fully convinced of the fallacy of this teaching, and propose to show as briefly as possible, *first*, that the susceptibility to small-pox, however thoroughly destroyed by vaccination, may subsequently return; and, *secondly*, that re-vaccination can be depended upon to exhaust this return of susceptibility to the disease.

It is evident from Jenner's own writings, that even in his day, an impression prevailed that the protective power of vaccination deteriorated in the course of time. Jenner, however, was unwilling to accept this view, notwithstanding the occurrence of post-vaccinal small-pox was frequently pressed to his notice. In the year 1809, Mr. Brown, of Musselburgh, broached the opinion that the prophylactic power of vaccination diminished as the time from the period of vaccination increased. His statements, however, are said to have been so vague that they made no impression on the public mind. But as time elapsed after the general introduction of vaccination, cases of modified variola occurred with such increasing frequency, that the wearing out of vaccine protection was evident, though for a long time but few admitted the fact.

The first epidemic of small-pox that occurred after vaccination was in general use appeared in Scotland in 1818–19, and very many vaccinated persons suffered from the disease. This rather unexpected experience gave rise at the time to much discussion concerning the power and

capabilities of the vaccine influence: but a detailed account of the epidemic visitation proved so conclusively the value of vaccination, particularly regarding its modifying influence over the disease, that the general confidence in the measure was not materially affected. I may add, that it was about this time that the term varioloid or modified small-pox was introduced and generally adopted.

Again, in 1824, the disease prevailed epidemically in Sweden, and also attacked a large number of vaccinated persons: of which number 103 died, "69 bearing good marks, and 34 less perfect evidences of the vaccine process." This epidemic extended to London, France, Italy and Germany, and in each country many persons who had been *vaccinated in early life* took the disease.

The earliest effort on the part of the British Government to establish a system of public vaccination was made on the Island of Ceylon. Salaried vaccinators were scattered over the island, and so successful were their labors, that for a number of years it was believed the experiment of exterminating small-pox by vaccination had been successfully made in that colony. But in 1819 an epidemic of small-pox of great virulence broke out and overspread the island: a second occurred in 1830: a third, in 1833: and a fourth, in 1836. In each of these epidemics a large number of persons who had been vaccinated in infancy or childhood, and trusted to it for their security, suffered from the disease. In the third epidemic, nearly 75 per cent. of the cases occurred among those who had been previously vaccinated.

From 1824 to 1835, several epidemics of small-pox prevailed in Denmark: "yet in no country in Europe," says Gregory, "has more attention been paid to the practice of vaccination, both as respects the numbers submitted to the process, and the purity of the lymph employed." But, notwithstanding so great efficiency in the work, during the period just mentioned, 3839 cases of small-pox occurred in Copenhagen alone: and of this number, 3093 cases, or more than 80 per cent., occurred among persons who

had been vaccinated in eary life. It is but fair to state, however, that the death-rate among this class of cases was very low—being only 2.13 per cent.

Among the most valuable statistical data bearing on the question under discussion—valuable, because there is no room to doubt the reality and efficiency of previous vaccination—are those collected in the British army from 1834 to 1838 inclusive. The regulations of the army required every individual connected therewith to be thoroughly vaccinated, excepting those only who had had small-pox; but re-vaccination was not then enjoined. The average strength of the army during this period was (including men, women and children) about 105,000: of this number, 1025 were attacked by small-pox, and 122 died, giving a death-rate of 11.9 per cent.

The statistics of small-pox hospitals show that a large proportion of the cases of the disease occur among persons vaccinated in eary life. By dividing twenty-five years (1826 to 1850 inclusive) of Gregory's service at the small-pox hospital of London, into quinquennial periods, we find as follows: at the first period, 1262 cases were admitted, of which 34 per cent. were post-vaccinal; at the second, 1331 cases were admitted, of which 36 per cent. were post-vaccinal: at the third, 1763 cases were admitted, and 41 per cent. were post-vaccinal: at the fourth, 1643 were admitted, and 43 per cent. were post-vaccinal; at the fifth period, 1780 cases were admitted, of which 52 per cent. were post-vaccinal. This shows a gradual and well-marked increase of post-vaccinal small-pox: the proportion of such cases having increased at the fifth quinquennial period 18 per cent. over the first. According to Marson, the number of admissions into the London small-pox hospital, from 1855 to 1865, was 7326, and 78 per cent. of these cases occurred after vaccination. In my own experience, during the great epidemic of 1871 and '72, 2377 cases were admitted into the municipal hospital of Philadelphia, and of that number, 68 per cent. occurred in persons vaccinated in eary life. During the recent epidemic—1880 '81 and '82—there were

1659 admissions, and 54 per cent. of these were post-vaccinal cases. By comparison, we find the proportion of this class of cases to be 14 per cent. less during the late epidemic. The explanation of this is, I think, that re-vaccination was more extensively employed then in Philadelphia than ever before.

These statistics are amply sufficient to show how very frequently persons vaccinated in infancy or early childhood subsequently contract small-pox; far more frequently, indeed, than do second attacks of the disease occur, which, in my experience, are exceedingly rare. And now I shall proceed to show still further that the deterioration of vaccine protection is progressive, increasing up to a certain period of life with the distance of time from the primary vaccination. To prove this, I shall make use of statistics showing the relative numbers and ages of persons attacked by small-pox after vaccination; also showing the ratio of deaths to the numbers attacked at the various ages.

The following table contains such data collected by three different observors:—

AGES.	GREGORY, OF LONDON.		HEIM, OF WIRTEMBERG.	MOHL, OF DENMARK.
	Cases.	Deaths.	Cases.	Cases.
Under 5 years of age.....	0	0	40	14
From 5 to 10 years.....	5	0	68	102
" 10 to 15 "	25	0	186	173
" 15 to 20 "	90	6	275	187
" 20 to 25 "	106	16	239	156
" 25 to 30 "	25	8	172	19
" 30 to 35 "	13	1	75	2
Above 35 years of age....	4	0	..	..
Total	298	31	1055	653

The next table contains a record of my own experience in the same direction. The 2907 cases of post-vaccinal small-pox therein recorded were observed between January 1, 1871, and May 1, 1883. I have classified the cases occurring in persons under the age of puberty to the quality of the vaccine cicatrices.

		CASES.	DEATHS.	PERCENTAGE OF DEATHS.
Under 5 years of age	Good cicatrix.....	1	0	..
	Fair "	4	1*	..
	Poor† "	5	1	..
	Total.....	10	2	..
From 5 to 10 years	Good cicatrix.....	11	0	..
	Fair "	9	0	..
	Poor† "	26	8	30·73
	Total.....	46	8	17·39
From 10 to 15 years	Good cicatrix.....	45	2	4·44
	Fair "	18	2	11·11
	Poor† "	36	4	11·11
	Total	99	8	8·02
From 15 to 20 years of age.....		388	47	12·11
" 20 to 25 " "		745	96	12·88
" 25 to 30 " "		580	92	15·86
" 30 to 35 " "		356	64	17·97
" 35 to 40 " "		249	51	20·48
" 40 to 45 " "		154	38	24·67
" 45 to 50 " "		105	22	20·95
50 years of age and upwards.....		175	63	36
Grand total.....		2907	461	16·89

Certainly, proof more conclusive than that contained in these tables is not needed to show the fallacy of the doctrine of the unvarying prophylactic power of vaccination. It is evident that thorough vaccination at first confers, in almost every instance, complete protection against small-pox: but in the course of time, particularly as children approach to and pass beyond the age of puberty, there is a very great deterioration of the vaccine protection. Gregory, than whom but few have had greater facilities for observation, says that small-pox is very seldom taken by vaccinated children under eight years of age, that he has never seen more than three or four instances of such occurrence, but that we are compelled to confess that later in life vaccine protection diminishes, and, I would add, entirely disappears in a large proportion of persons.

* This case, not at all severe, occurred in a very delicate child—a foundling—one year old.

† Doubtless, very many cases classified in the table under the headings of "poor cicatrix" were never successfully vaccinated.

It is true that quite a large number of the cases of post-vaccinal small-pox reported by Heim and Mohl occurred in children under ten, or even under five years of age: but judging from Gregory's and my own experience, I think it safe to assume that all such cases were very mild—probably so mild as not to endanger life, unless there was a previous condition of broken health, or the vaccination had been carelessly and inefficiently performed. I have recorded in the table one death as having occurred in a child under five years of age, who had been vaccinated, and showed a fair cicatrix. This child, one year old, a foundling from the almshouse, had only a very mild form of varioloid, but was previously so feeble and delicate that the most trivial ailment was all that was needed to terminate its miserable existence.

The tables, while they certainly show a very gradual increase in the number of cases of post-vaccinal small-pox during the earlier period of life, prove that the maximum number occurs at the periods immediately following puberty; thus indicating that at this eventful epoch some change is brought about in the animal economy that lessens or entirely destroys the protective influence previously exerted by vaccination. This may be the case even when the vaccination had been most thorough and satisfactory.

Forty-four per cent. of all the post-vaccinal cases which have come under my observation presented good cicatrices; twenty-one per cent. "fair," and thirty-five per cent. "poor" cicatrices. I have seen small-pox occur in persons presenting more than twenty typical vaccine marks: and I have known death to occur when as many as twelve such marks were present. The sooner, therefore, the profession and the public fully recognize the necessity of re-vaccination in all persons at the age of puberty, if not earlier, regardless of the quality or number of their vaccine scars, the sooner shall we succeed in the noble work of preventing small-pox, or of cutting short epidemics of the disease, which now so frequently pervade our country.

If, then, vaccination of the highest degree of excellence

fails to confer permanent protection against small-pox, how much less must be the protection that comes from vaccination of an inferior character! That there are various types of vaccinia, depending on the quality of the virus used, there is no room for doubt. The deterioration or diminished efficacy of vaccine virus by long humanization, is a question which has been variously regarded by different observers; being accepted by some as an axiom, and rejected by others as a mere fancy. For myself, I have no hesitation in saying that it is my belief that vaccine virus not only loses much of its vigor through a long series of human transmissions, but that it also suffers in the durability of its prophylactic power. Jenner maintained that, in order to secure the highest degree of prophylaxis, vaccinia should pursue a certain definite course. He announced as a law that, coincident with the development of the areola, there should be a very decided febrile reaction. Now, doubtless, most all careful vaccinators have noticed that vaccine virus very far removed from its original source does not, as a rule, produce any well-marked febrile reaction, even when several insertions are made—a fact of vast importance if the dictum of Jenner is based on anything like truth.

As long ago as 1836, Bousquet, writing on the "Cow-pox of Passy," which had just been discovered, called attention to the very great difference between the course and duration of vaccinia induced by the newly-discovered virus and that induced by the old—the latter at that time probably represented thirty-eight years of uninterrupted human transmission. Bousquet says, that he who recognizes no difference between the action of virus of long humanization and that of recent origin must have been satisfied with the customary visit to the patient on the seventh or eighth day after the operation, for after that time the two viruses differ very markedly. Those who take the trouble to follow the vesicles to the end must notice that the areola of the old virus appears the earlier, and that of the new follows after an interval of one to two

days. The areolar inflammation in the first case is light and evanescent, and in the second intense, extended, and phlegmonous. The disease is, therefore, not only more active in the latter case, but its duration is of much longer continuance.

We are informed by Jenner and all the earlier investigators of vaccination, the vaccinia requires for its fullest development and completion, not less than twenty-one days. For example: The vesicle appears at the end of of the fifth day after insertion of the virus: the areola, at the end of the ninth or beginning of the tenth day: and the crust never falls off spontaneously, nor can it be easily removed, before the twenty-first day, and very often not until the end of the fourth week. Vaccinia induced by the Passy cow-pox at first answered to this description: but in 1844, it was found that the drying of humanized Passy vesicles took place on the fourteenth day instead of the seventeenth, having lost in eight years three days of their ripening period. The vesicles of the Jennerian stock of virus after thirty-nine years of uninterrupted human transmission were found to undergo desiccation in twelve days, losing in that time five days of their maturing period. Dr. Martin, of Boston, says that, in 1859, he obtained from Ceely, a supply of long-humanized lymph, which he continued to propagate for several years, and that the course of the disease induced by this virus was usually eleven days, counting from insertion until the crust would fall off, or could be readily removed. He also says, that for nearly ten years he propagated virus which he received from the National Vaccine Institution of Great Britain, and that "this virus induced a disease, the duration of which was fourteen days, very exactly, from insertion till fall of the crust." Doubtless, the virus in general use in this country for several years previous to the introduction of animal lymph (1870) was of this "stock." When a public vaccinator, in Philadelphia, from 1867 to 1870, I found it necessary to visit my patients for the purpose of collecting crusts for future use on the fourteenth

or fifteenth day after inserting the virus: if I delayed my visits to a later day, my harvest of crusts would prove very scanty.

The character of the vaccination which a person has received may, as a general rule, be known ever afterwards by the appearance of the vaccine scar. Vaccinia of a duration and intensity at all approaching to the typical standard is quite sure to be followed by a permanent scar, as distinct and well-defined as if stamped by a sharply cut die. On the other hand, vaccinia of short duration—the vesicle involving only to a slight extent the dermal tissues—produces a superficial and ill-defined scar. It is evident, therefore, that the various types of vaccinia resulting from virus of different degrees of humanization must produce a great variety of scars, differing from the proper standard in proportion to the number of removes of the virus from its original source. It is not difficult to prove that, as a general rule, there is a direct relation between the quality of the vaccine cicatrices and the prophylactic power which exists. This is a practical point of so great importance that it cannot be too strongly emphasized, nor too widely known.

It is true that vaccinia of short duration, such as I have described, will destroy the susceptibility to small-pox; and when I say this, I honestly express the result of my own experience. Furthermore, I would say that, for vaccination after exposure to the variola contagion, my experience leads me to prefer humanized virus, somewhat remotely removed from the heifer, on account of the more speedy development of the vesicle and the earlier appearance of the areola, the latter being evidence of systemic impression. But the point I wish to emphasize is, *that the protection which results from vaccinia of short duration is not so durable as that which results from vaccinia of a perfectly typical character*. Or, in other words, *the prophylactic power exerted by long-humanized virus is less durable than that exerted by bovine lymph, or lymph of recent humanization*. To prove this statement, after what

has been said about the peculiarities of the two viruses, it is, I think, only necessary to show that small-pox is less modified and more fatal among persons showing poor or even fair vaccine scars, than among those showing good scars. Now, according to my experience, the death-rate among patients having good cicatrices has been nine per cent.; among those having fair cicatrices sixteen per cent.; among those having poor cicatrices twenty-seven per cent.

The Efficacy of Re-vaccination. — Having shown the necessity for re-vaccination, it yet remains to say something about its efficacy. But I have already consumed so much time that I cannot do more than refer briefly to this topic.

The question is often asked, What constitutes successful re-vaccination? This is a question about which there is some diversity of opinion. Many physicians believe that unless the vesicle and areola observe the course of true and typical vaccinia, the effect is merely local, and without any prophylactic value. But, certainly, there is no more reason why we should expect the vaccine disease induced by re-vaccination to be true and typical than that we should expect small-pox after vaccination to be true and typical. If we have modified small-pox or varioloid after vaccination, then we should have modified vaccinia, or vaccinoid. And as varioloid differs in various degrees of severity from true small-pox, so should vaccinoid differ from true vaccinia. This I believe to be the case; and, if so, it then follows, that, as varioloid gives protection against a recurrence of small-pox, so does vaccinoid exhaust whatever susceptibility to the disease may be present.

After citing numerous instances of protection by re-vaccination, and without a single failure, even under epidemic influence, Bousquet truly says, "there has not been an epidemic which has not proved, at the same time, the virtues both of vaccination and re-vaccination." He further says, "the success of re-vaccination is at the same time the effect and proof of the wants of the system" — "when it succeeds, it not only proves that the protective

power of vaccination is diminished, but it supplies a remedy for this diminution."

As to the age at which re-vaccination should be advised, but little need be said here, as the tables which I have presented clearly decide that point. It is evident that it is often required at ten years of age, and that the necessity for it very greatly increases at fifteen years. In times of epidemic prevalence it should be practised earlier.

Some of the earliest and most conclusive proof of the value of re-vaccination is furnished as the result of experience in the Wirtemberg, Bavarian, and especially in the Prussian armies. Among 14,284 re-vaccinated soldiers in Wirtemberg, only one case of small-pox occurred in five years; and only three among 26,964 revaccinated civilians. During three severe epidemics of small-pox in Copenhagen between the years 1828 and 1835, not even a single instance of varioloid was observed among any who had been re-vaccinated. During an epidemic at Heidelberg in 1843 and 1844, while the vaccinations most successfully performed very frequently failed to protect those older than ten years, yet in no single instance was a re-vaccinated person attacked. In a dreadful epidemic of small-pox which a number of years ago desolated Liege, it is said that none of those who underwent re-vaccination suffered from the disease.

It is due to Germany to say that vaccination is nowhere more carefully and thoroughly performed than in that country. It was there that re-vaccination was first practised, and has ever since continued to be systematically performed. Almost every infant is vaccinated within the first year of his life, and re-vaccination is usually done about the twelfth year. In addition to this, every person entering the army is again vaccinated, and if it fails it is repeated again and again until the vaccinal effect is produced, or the surgeon is satisfied that the person is insusceptible to vaccinia. It is not only evident from this that the German army is well protected against small-pox, but the fact is proved beyond all question by official statistics.

During the Franco-Prussian war, small-pox prevailed to an alarming extent, and both armies were freely exposed to the contagion; but the loss by death from that disease in the German army was only 263 men, against 23,468 in the French army: and the latter army was at no time much more than one-half the size of the former. In joining the French army, vaccination was not a prerequisite, and re-vaccination was in no wise compulsory.

Among the most conclusive proofs of the efficacy of re-vaccination is that furnished by statistics of small-pox hospitals. After thirty years of labor at the hospital of London, Marson asserted that but few persons were admitted who had been re-vaccinated with effect, and that these few had varioloid in a very mild form. During his connection with the hospital, he re-vaccinated all the nurses and servants, who had not had small-pox, on their coming to live at the hospital, and *not one of them* contracted the disease. At a time, however, when a large number of workmen were employed about the hospital, most of them consented to be re-vaccinated, but there were a few who declined: of the latter two took small-pox, while the former enjoyed perfect protection.

The medical superintendents of the several small-pox hospitals of London report that during the period from 1876 to 1879, when 11,412 cases of the disease occurred among vaccinated persons, *not one case was known to occur in any person who had been successfully re-vaccinated.* Of the nurses and servants employed at the various hospitals, numbering in all about 1000, some half dozen only contracted the disease, and these for some cause or other had escaped re-vaccination before entering the wards.

My own experience in hospital work, which, as regard time, comprises a period of more than twelve years, entirely agrees with that of the observers just quoted. Only very few patients during that time have been admitted into the hospital under my charge with varioloid who presented evidence of having been successfully re-vaccinated, and these few have had the disease in so mild a form that death

has not occurred in a single instance. During my service no person entering the hospital in any official capacity—as resident physician, steward, matron, nurse, laundress, or other employé—who had taken the precaution to be re-vaccinated before entering on duty, has suffered from small-pox in any form whatsoever. But on the other hand, I have seen a few employés in whom re-vaccination was for some cause omitted, become infected by the disease.

From the facts just presented the conclusion is inevitable, that if vaccination were efficiently performed in infancy, and re-vaccination at puberty, if not earlier, we would then begin to realize the truth of Jenner's assertion, viz: *that vaccination is capable of extirpating small-pox from the earth.* But whether vaccination will ever be so universally and wisely employed as to confer on mankind its greatest possible benefits, is doubtful.

Cæsarian Section—Post-Mortem—Successful Delivery of a Living Fœtus.

By J. J. BURROUGHS, M. D., HOUSTON, TEXAS.

(Transactions Texas State Medical Association, April, 1883.)

Mrs. Laura Dickinson, the subject of this sketch, was the oldest of nine children, and the daughter of Aberdeen and Hester English. She was born March 11, 1855, in Clark county, Alabama; came to Texas in December, 1860; located at Waverly, Walker county, and in 1868 removed to Houston, where she resided until her death. She was married to Andrew Dickinson in April, 1870, and at the date of death, she and her husband were living on Hickory street, corner of Montgomery, city of Houston. She had been confined seven times, giving birth to eight children. Her last labor occurred in January, 1880; was natural, and from which she recovered promptly, her general health being very good. She was a woman of medium height, well formed, good physique, full habit, inclined to plethora. She again conceived in a few months, and supposed her-

self to be at full term about the middle of March, 1882. Being in fine health, active and industrious, and accustomed to performing her housework and washing, and being assured that her confinement was but a few days in the future, she determined, on March 14th, as a preparatory measure, to do her week's washing. Tuesday and Wednesday she worked steadily, and on Wednesday night she complained of a severe headache, attributed its occurrence to the stooping position constantly maintained the two preceding days. She took a dose of castor oil, and went to bed at eight o'clock, but did not go to sleep. About eleven o'clock she was seen by her husband to get out of bed and walk across the room and fall suddenly upon the floor. He immediately went to her, raised her in his arms and placed her on the bed; she was insensible for a time, but soon partially recovered her senses and again complained of headache; it was then ascertained that she was paralyzed on the entire right side. I was sent for, but was not at home; her husband came for me the next morning, and I saw her at about 11.30 A. M., March 16th. I found her bathed in a copious perspiration, with slow, difficult, stertorous breathing; pulse not more than 80, very small and weak: left eye open, pupil dilated; the right eye closed, but on inspection found the pupil largely dilated; the right half of the mouth was paralyzed and drawn to the left side; the right arm and leg were both paralyzed and quiet, while the left arm and leg were in constant spasmodic motion. Upon a careful inspection of the pulse, I determined that the heart's action was rapidly failing, and observed, also, that the respiration was growing more labored. She was absolutely comatose.

Noticing that she was pregnant, I asked the midwife, who had been engaged to attend her, if there had been any indications of labor. She replied that there had been no evidence of labor pains. Within ten minutes after I had entered the house she drew her last breath, and at the time she made her last effort to gasp for breath, I saw what I believed to be a movement of the fœtus *in utero*.

Her husband was standing on one side of her and her father on the other, and I think it was probably three or four minutes after the patient had breathed her last, that I said to her husband and father, that the woman was certainly dead, and that there was nothing more to be done for her, but that I had reason to believe that the child *might* be saved, and if you will permit me I will make the effort. They both immediately answered, "yes, by all means, if you can," and immediately left the room, leaving no one present but Mrs. Scott, the midwife, and myself. I ordered a tub of hot water, and Mrs. Scott stepped into the next room and returned with it in a few moments. In the meantime I had taken a bistoury from my pocket case, made bare the abdomen, and introduced it about one-half inch above the pubic bone, and with one sweep of the knife laid open the abdominal walls, from the point of entrance along the linea alba to within an inch of the umbilicus. The full term uterus protruded one-fifth or one-sixth of its thickness through the abdominal cut. I instantly made an incision from the lower end of the abdominal cut, along the top of the uterus, to the naval end of the cut, carrying the knife not more than half way through the walls of the uterus; I then thrust a grooved director entirely through the unsevered portion of the uterine wall at the naval end of the first incision, and easily carried the director, with the point of my knife in the groove, to the pubic end of the abdominal wound, without any danger to the fœtus. The child came immediately into view, was taken out of the uterus and placed on the bed; the cord was cut with the bistoury about six inches from the fœtal abdomen, and as the blood was disposed to flow pretty freely from the cord, I placed it between the first and second fingers of my left hand, and with my right took the child from the bed and immersed it in warm water; a ligature was handed me by the midwife and was soon secured about two inches from the child's abdomen, the superabundance of cord being removed by the knife.

The child had not yet shown any signs of life: I then began making artificial respiration, my assistant, Mrs. Scott, keeping the child immersed in the warm water up to its neck; in two or three minutes from the beginning of this process, the first effort was made to breathe, a minute afterwards another effort, and in from six to eight minutes the child was breathing sufficiently well to remove it from the water; it was then washed and dressed in the usual way. It has been nourished from the milk of a goat, and given Mellon's infant food, alternately, since its advent, and is at this writing six months' old, and has never been sick a day. It appears well nourished, growing and thriving as well as any child I have ever seen raised in this way.

HISTORY OF THE OPERATION.

Ramsbotham devotes six lines to this subject. He says: "Should sudden death occur in labors, or the last two months of pregnancy, it would be the bounden duty of the attending surgeon, after having stated to the friends of the patient the probability of saving the child's life, to proceed without delay to extract it by the abdominal incision, and if such measures were used in fifteen or twenty minutes after the decease of the mother the result would probably be favorable."

Churchill (by Condie) says: In case of sudden death of the mother, Cæsarian section *may* be performed, and mentions one successful case, that of Dr. Jackson; but says it will be in vain, if much time elapse after the death of the mother.

Byford says: In case of sudden death of a woman at or near full term, the indication is to perform Cæsarian section: the indication is still more imperative if the decease has been of short duration and sudden termination, or the woman has been the victim of an accident, that has suddenly deprived her of her life: but that the operation is of extremely rare occurrence in this country, if not, indeed, anywhere at this time. Cases are on record of living fœti

having been removed from the dead mother, but statistics are very meagre and unreliable upon this subject.

Playfair devotes a page and seven lines to the subject; he says: There is no doubt that a prompt extraction of the child under these circumstances has been the means of saving its life, but by no means so often as is generally supposed: thus Schwartz shows that out of 107 cases, not one living child was extracted; Vellenueve, however, reports seven successful cases; the reason that the want of success is so great, is doubtless the delay that necessarily occurs before the operation is resorted to. The very time necessary to assure ourselves that life is actually extinct, will generally be sufficient to cause the death of the fœtus. The recorded instances in which a living child was extracted, ten, twelve, or even forty hours after the death of the woman, were most probably cases in which the mother fell into a prolonged trance or swoon, and during the continuance of which the child must have been removed.

There is a chance for the continued existence of the life of the child, and we should not hesitate to perform the operation, even though so much time has already elapsed as to render the chances of success extremely small. It is superfluous to insist on the necessity of assuring ourselves of the mother's death before commencing the operation; unfortunately, numerous instances are known where mistakes in diagnosis have been made, and in which the first steps of the operation have shown that the mother was still alive. The operation should always be performed with the same care and caution as if the mother were living. Leishman gives us seventeen lines on the subject; he says: When the operation is called for by the death of the mother, either before or during labor, there are no considerations which will encourage a moment's hesitation or delay; the period during which the vitality of the child may be preserved is probably very limited; authentic cases are recorded in which the child has been removed alive ten, fifteen, and

even thirty minutes after the death of the mother, but we must treat as fables those instances of which we read, where it is said to have been found alive ten, fifteen, or twenty-four hours after the mother has ceased to live.

[In connection with the preceding observation by Dr. Burroughs, the following abstract of a paper by Runge (of Berlin), "Concerning the Justification of the Cæsarian Section upon a Dying Woman, and Concurrent Obstetric Experience" (*Zeit. fur Geb. u. Gyn.*, IX, 2), published in the *Am. Journal of Obstetrics* for November, will doubtless prove interesting.—EDS.]

JUSTIFICATION OF THE CÆSARIAN SECTION.

If, as seems to be the case, remarks the author, the fœtus never participates directly in any severe and probably fatal illness from which its mother may be suffering, the possibility arises of rescuing its life, even in the presence of the mother's fatal illness. With the views which are at present commonly held upon this matter, it would be very difficult to prescribe the course of action which would be always and entirely right. A number of cases have occurred in the author's experience in which the question has presented itself of rescuing a mature or nearly mature fœtus under the foregoing condition. One was in a primapara fatally sick of an acute disease at the eighth month of pregnancy. The case progressed to the death agony, and still the signs of vitality in the fœtus were perfectly clear. Labor had begun, the os had dilated to the size of a quarter of a dollar, the head was presenting, but delivery by the natural passages seemed impossible. The mother died; the fœtus was immediately removed by Cæsarian section, but it was already dead from suffocation. Question: Was the sacrifice of the child's life justifiable? In another case, in which the mother had reached the seventh month of pregnancy, death was approaching, also from an acute disease. Artificial abortion was accomplished, the child being extracted

after turning. The mother died during the operation, the child was dead when delivered, though it was unmistakably living before the operation was performed. The author continues to state that Röser, in 1840, was the first to perform the Cæsarian section upon a dying woman, the child's life being saved. He (Röser) gives as indications for the operation: 1. A diagnosis and prognosis, by the physician, of certain death to the mother within twelve hours. 2. Complete unconsciousness of the mother. 3. Impossibility of delivery by the natural passages, and assurance, by auscultation, that the child is alive before the Cæsarian section is begun. In 1873, Nussbaum performed a similar operation, and also delivered a living child. From the author's experience in yet another case, in which the child was delivered alive, he considers that the operation is justifiable when the death of the mother is imminent, and when the child cannot be delivered by the natural passages. The operation should be performed before asphyxia, great sinking of the blood pressure, and excessive elevation of the maternal temperature have already influenced the life of the child to such a degree that resuscitation would be impossible. In August, 1881, Frank operated successfully upon a woman dying from burns, and pregnant at the eighth month. The mother died of her burns (?) ten hours after the operation. These four cases are all which literature affords of successful attempts at this procedure.

The author next discusses at length the claims for and against the operation. He cites Spiegelberg as positive in his approval of it, Schröder as more cautious in his opinion, Zweifel as endorsing it only when the mother is *in extremis*. Very adroitly does he argue against the humanitarian view which condemns the operation absolutely, but he acknowledges that a prognosis of approaching death may be a mistaken one, and hence a valid objection may be raised against what will, almost certainly, be a fatal procedure. His apology, that delivering through the pelvis, even by *accouchement forcé*, when a parturient woman is in a dying condition, is universally recognized as a proper practice,

strengthens his plea for the cutting operation. Against the operation is also to be mentioned the difficulty of performing it, under the ordinary surroundings of private practice. With all these facts in view, if one is brought face to face with the following conditions, viz.: A woman far advanced in pregnancy; a disease that is almost certain to be quickly fatal to her; and a fœtus in utero with perceptible and vigorous heart movements, the author conceives that the proper plan of procedure would be: 1. If possible, the accomplishment of artificial abortion. 2. The Cæsarian section, if the former is impossible. 3. If neither of these plans is feasible, the Cæsarian section immediately after death. Within the past three years, not a few cases have been published in which the life of the child has been saved by such an operation.

Vivisection.

By the Late J. DICKSON BRUNS, M. D.,

Formerly Professor of Physiology and Pathology in the New Orleans School of Medicine.

"Dat veniam corvis, vexat censura columbas."

One of those periodical paroxysms of virtue, which are so characteristic of the moral history of England and America, has recently been raging on both sides of the Atlantic. This time the fit of indignation is directed against the barbarous practices of physiologists; nor has it run the less high because of the utter incapacity of the mass to form any sane judgment on the subject. It is matter of familiar observation that the less men know, the more dogmatic they usually are; and the vulgar are always most readily excited by those appeals which inflame the imagination without addressing the reason. To listen patiently, to deliberate calmly, to decide with caution, is only given to those who, with untiring labor of heart and hands, have struggled up through the long gorge to the serene heights of science; the herd push blindly on in the track of any leader, and fancy their narrow sheep-path the

broad highway of truth. But they are not satisfied with having attained the supreme good, unless they can make others enjoy it after their fashion. Your philanthropist lives in an atmosphere of self-complacency that wraps him up like a blanket, and he regards all vision as defective which does not look through his medium. You must see as he sees, and do as he does, or you are no better than one of the wicked. And so it comes about, that in all large communities little mutual-admiration societies spring up, of persons who having themselves attained perfection, feel called upon to coerce their neighbors into the same beatific state; and under the title of "Peace Societies," "Humane Societies," and "Societies for the Prevention of Cruelty to Animals," are the most arrogant and intolerable intermeddlers with things that they know nothing about, and in which they have no concern. Since they are virtuous, they will have it that there shall be no more cakes and ale in the land.

This modern Pharisee, like his prototype, is very particular about the outside of the platter. No matter what you really are, so long as your outward practices conform to *his* idea of decorum. You must crop your hair, you shall wear a particular style of dress, you shall sniffle and drawl in your speech; but you shall not go to a playhouse or take any wholesome recreation on Sunday, or, in a word, do or leave undone anything but what seemeth good unto him. He is illumined by an inner light, and is the subject of a higher law, of which he is the infallible expounder. Consistency he sets no value on. Toleration is only a virtue when exercised towards himself. Nor will he make any allowances for the differences that may result from race—influence, hereditation, training, or iudividual temperament. By these signs you may recognize him in all places and at all times. Change of horizon cannot modify, nor the lapse of ages alter his nature. The child may deny his parent, but he cannot do away with the undeniable likeness of lineament and character. The radical and the reformer shake hands across the broad ocean. Fanueil

Hall applauds Exeter to the very echo. The hands may be the hands of Esau but the voice of Jacob's.

Now and then, however, to the great delight of the unbelieving, he runs his head against a wall, and, as Mr. Carlyle said of the Austrians, "mashes his foolish face into pancake against the eternal adamant of things." Such an arrest to his aggressive career he is now meeting with, and it is the object of this paper to add a stone to the barricade which men of science are erecting about the field they have long proved their right to occupy, and which they intend, if possible, to keep sacred from intrusion.

It is now some years since the "Royal Society for the Prevention of Cruelty to Animals" sent a deputation to wait on the Emperor of France, Napoleon III, and to represent to his majesty the cruelties practised on animals at theVeterinary School at Alfort. The Emperor promised to institute an immediate inquiry, and accordingly a commission was appointed by the *Académie des Sciences*, which, after examining into the subject, reported a series of resolutions to the Academy in answer to the questions submitted to them. The animated discussion that ensued was closed by M. Gosselin, whose amendment to the report, as follows, was carried:

"*Resolved*, That the complaints of the London Society are totally without foundation. That there is no occasion to take any notice of them. That in the future, as in the past, vivisectional experiments in the veterinary schools be left entirely to the judgment of scientific men."

Having been thus snubbed, the Royal Society next invited an International Congress of all the learned men in the world, to meet in London, for the purpose of discussing the practice of vivisection, and this falling through, it, with noteworthy perseverance, offered in 1865 a prize of fifty pounds for an essay in English, and a premium of one thousand francs for an essay in French, on the following propositions:

1. Is Vivisection necessary or justifiable (when performed as at certain veterinary schools) for the purpose of giving dexterity to the operator?

2. Is it necessary or justifiable for the general purpose of science, and if so, under what limitations?

Of the eighteen gentlemen invited to act as judges, twelve accepted the office, viz.: The Noble Earl, President of the Society: His Imperial Highness, Prince Louis Lucien Bonaparte; Right Hon. and Right Rev. Lord Auckland, Bishop of Bath and Wells: Col. F. H. Buckeridge; Frank Buckland, Esq., M. A.: Dr. Carpenter; J. F. Clarke, Esq. (of the *Lancet*): Dr. Fraser Prof. Owen; Dr. Quain; Prof. Spooner; Prof. Varnell. And six declined it, viz.: Right Hon. Earl Stanhope: Charles Darwin, Esq.: Prof. Huxley: Dr. Lankester Prof. Marshall; Prof. Simonds.

At the adjudication, the prize was awarded to Mr. Fleming, Veterinary Surgeon of the Third Kings Own Hussars, for an essay denunciatory of vivisection, either at veterinary schools or for the purposes of science, under any circumstances. But as another essay was only in a minority of one vote, a second prize was subsequently given by the committee to its author, Dr. Markham, F. R. C. P., Physician to St. Mary's Hospital, and formerly Lecturer on Physiology and Anatomy at St. Mary's Hospital Medical School, who approved of vivisection as the soundest means of determinating physiological questions, when intelligently and legitimately conducted. It is not difficult to guess what members of the committee concurred in his views.

In obedience to that law of mutual commendation and quotation which we have said is characteristic of such bodies, the New York "Society for the Prevention, etc," has very recently uttered its protest against the horrors of vivisection, in a paper couched in that inflammatory style, and dealing in that reckless assertion, which usually stands the ignorant in place of argument.

Although this is a question which scientific men, if not

solely concerned in, are alone competent to decide, we are now put upon our defence before the public, and are bound to show that the charges of wanton and useless cruelty to the helpless subjects of our experiments, are not founded in fact.

Dr. John C. Dalton, Professor of Physiology in the New York College of Physicians and Surgeons, has indirectly replied to Mr. Bergh, President of the New York Society for the Prevention of Cruelty, etc., in a paper read before the New York Academy of Medicine. It was eminently proper that it should come from one of the most accomplished physiologists in America, who is not merely the most successful cultivator and teacher of his branch by the experimental method, but a gentleman widely esteemed and beloved for his many amiable qualities. The paper itself is a well-considered digest of the obligations which our science owes to experimental physiology; and if we are obliged ourselves to travel over a part of the same ground, it is an additional proof how thoroughly incorporated those truths are with the history and progress of medicine.

Mr. Fleming's is the first attempt we have met with at a methodical statement of the objections to vivisection. Had he confined himself to his own sphere of veterinary surgery, we should have had nothing to say. But when he passes beyond this, and in an essay as remarkable for its ignorance of facts as for its audacity of assertion, exhausts the whole vocabulary of horrors in his vituperation of experimental physiology, we are forced to retort. Not that the imprimatur of the Royal Society makes it any the less ridiculous; but only that it is the more dangerous to a not inconsiderable class who attach great weight to authority.

To dispose very briefly of the first section of Mr. Fleming's essay, we agree with him that the cutting, tearing and burning of living horses for the sake of acquiring surgical dexterity, which can be as well done, to say the least, on the cadaver, is wholly unwarrantable. We re-

probate, as all physiologists do, the infliction of all unnecessary pain, when the end sought is at best doubtful, and can be obtained by methods not open to the objection of inhumanity. No one, indeed, has so great an interest as ourselves in suppressing all wanton cruelty to animals, under whatever guise; for, aside from the sentiment which we may be supposed to share with all humane persons, it is this abuse of scientific method which brings reproach upon a most efficient and praiseworthy means of research. But to assert, as the Royal Society does, that "in so far as it concerns animals, it matters not whether the tormentor is a man of high degree or thoroughly debased—whether he is moved by noble purposes or governed by brutal instincts—the sufferings of the dumb, defenceless, sensitive creatures are the same," is almost too absurd a proposition to challenge. The same argument would reduce every surgical operation for the cure of disease or to save life, to the same level with the torture inflicted on his victim by the North American savage, "because the sufferings are the same." A person unused to such sights might turn away sickened from the excision of a cancerous breast, or the Cæsarean section, but it is difficult to conceive of any one so weak-minded as to condemn the operation, "because he could not witness the practice of surgeons, (for *surgeons* read "physiologists, known as vivisections") without a shudder of pain." There are clearly cases constantly arising in our profession, where the maxim, doubtful in morals, that "the end justifies the means," is indisputable. Or, does any one accuse of criminal murder or suicide, the general who orders a thousand men on a forlorn-hope, though he believes their destruction to be inevitable; the martyr who goes to the stake rather than renounce his creed; the woman who deliberately takes her own life to escape a nameless shame, preferring death to dishonor?

Setting aside, then, the veterinary question as one which does not concern us, except as men not wholly devoid of sensibility, let us examine the charges brought against

experimental physiology. Without entering into unnecessary detail, these may be reduced into two categories:

First, that it is cruel, and tends to debase the mind and blunt the sympathies of those that pursue it;

Second, that so far from having led to any valuable results, it has been the source of great error and confusion.

For the sake of convenience, we shall consider the last of these propositions first.

Experimental physiology, which in its true sense embraces a variety of procedures besides vivisection, has for its object to determine the functions of organs and their mutual relations. If it be asked what it has accomplished, we answer, that there is not an important fact known concerning the dynamics of the human body which it has not discovered or illustrated. And first let us interrogate the

NERVOUS SYSTEM.

Mr. Fleming, in a facetious vein, calls up the shade of Galen—the caustic satirizer of empirics in his own day—to deride the "burlesque philosophy" which applies the questionable results of experiments on rabbits, pigeons, guinea pigs, etc., to an elucidation of the complex phenomena of life in man. Yet up to the time of Galen, says Prof. Owen, while "observation showed the course of a nerve or a tendon to a mass of flesh, it did not own what they did to such mass, now termed muscle. The closest and most persevering observation of the phenomena in the dead body could only teach the invariable relations of the nerve or tendon to the muscle. When the idea occurred to the Alexandrian physiologist to divide, in the living animal, the several kinds of white cords, called neura by his predecessors, then, and then only, was his science enriched with the power of distinguishing true nerve from tendon, ligament, etc." It was by experiment, too, that Galen first determined the function of the recurrent laryngeal, and showed its relation to phonation. If the physiology of the nervous system slept a dreamless sleep for centuries after his time, it was owing, not so much to the

intrinsic obscurity of the subject, as to the neglect of the only method by which it could be successfully approached. The rich results obtained during the last forty-five years; our knowledge of the reflex function of the spinal cord; of the different attributes of the anterior and posterior roots, and their decussation in the cord; of the true distinction between ganglionic centers and nerve trunks; of the regeneration of nervous structures; of the functions of the cranial nerves; of the sympathetic system, the medulla oblongata, the sensory ganglia, the cerebellum; of the transmission of sensory and motor impressions, and their rapidity; and a mass of facts concerning general and special sensation, have been wholly due to experiment, imperfectly and obscurely aided by the testimony of our own consciousness and the manifestations of disease. As if the case had been made on purpose to illustrate the valuelessness of mere observation, twelve years after Sir Charles Bell and Magendie had demonstrated the different endowments of the spinal roots, Mr. Walker, of Edinburgh, published his claim to priority of discovery, asserting that he had theoretically shown that the *anterior* roots were *sensory* and the *posterior*, *motor*—just the reverse being true. And he goes out of his way to revile as dolts or drivellers those who rely on experiment, falsely imagining that eyes and fingers can be a substitute for brains. Now, *nomine mutato, de se fabula narratur*. Shall we turn to

RESPIRATION?

What do we know of its nervous centers and excitors: of its essential nature; of the reason why a limited volume of air in which an animal is confined, diminishes in volume unfit to support life; of the atmospheric element which disappears under these conditions; of the nature and causes of asphyxia, of its relation to the rate of life, temperature, age, etc., which is not entirely due to experimental research? If we take up the subject of

DIGESTION,

The answer is more emphatic. As an illustration

of Mr. Fleming's knowledge of the history of physiology, and his capacity to sit in judgment on its evidence, we will quote a single paragraph from him: "Reaumur," he says, "observing digestion only in birds, which have a strong muscular gizzard, came to the conclusion because this organ was capable of grinding hard substances, that trituration was the essential principle of digestion. To study digestion as it is in man, what wisdom is there in experimenting upon a ruminant animal, with three or four stomachs to digest a vegetable diet, a carniverous animal, with a stomach only adapted for flesh, or a creature that feeds exclusively on grains. And yet we find that Sir Astley Cooper drew his deductions from experiments on the dog, a carniverous animal, and applied them to man, an omnivore. When noticing digestion, I may call attention to the results which vivisectors have obtained in their experiments upon it. A most inhuman man, a Dr. Brachet, divided the pneumogastric nerves in a dog, after allowing it to become ravenously hungry, and found that it had lost all desire for food. Dr. Reid, of Edinburgh, repeated the experiment several times, but without success."

Now the facts are, that up to the time of Reaumur, the act of digestion was supposed to be mechanical; it being thought that the stomach ground down the food to a pulp by its motions. Reaumur at first shared this view, but afterwards put it to the test of actual experiment, by making a dog swallow hollow perforated balls containing meat. After allowing these to remain in the stomach for hours, he withdrew them by means of an attached thread, and found that the meat had disappeared. Varying the time during which the balls were suffered to remain in the stomach, he demonstrated that meat was as fully, though more slowly digested, as when not so protected; and that digestion was accomplished therefore by the action of the solvent juice of the stomach, and not by the mechanical power, the action of the gastric juice beginning on the outside of the bolus and gradually reaching the center.

Whatever error Sir Astley Cooper may have been led

into, not taking into account the nature of the animals he experimented on, was one not unlikely to occur with a pioneer in this field, but is scarcely possible to be overlooked by a physiologist of to-day. Since Cooper's time, the labors of Lehmann, Corvisart, Koopman, Brucke, and others, have shown that while the strongly acid gastric juice of carnivora is best adapted to dissolve animal albumen, the weaker acid of the herbivora accomplishes the solution of vegetable albumen or gluten with much greater facility. A very useful guide in prescribing the diet of persons whose stomachs are in an enfeebled condition.

The results of Dr. Reid's experiments on the effects of section of the pneumogastric, which have since been corroborated by Bidder and Schmidt, so far from negativing those obtained by Brachet, confirmed them. For they showed that the digestive power was suspended for some days, but recovered itself eventually if the animal survived the shock of the operation.

How far the secretion of the gastric juice is under the control of the nervous system, or by what channel such influence is conveyed, is still a matter of discussion. The well known effect of mental emotion, as of sudden and intense grief or joy, in putting an immediate stop to the digestive process, shows that some such influence is exercised: and much of the contrariety observed in the results obtained by different experimentors, may be owing to the point at which the pneumogastric is cut—whether above the inferior laryngeal, and so affecting the respiration, or at the œsophageal opening, involving section of the sympathetic. "Seven out of Dr. Reid's experiments," says Dr. Carpenter, "were performed before he obtained any evidence of digestion after the operation, and the four which furnished this followed one another almost in succession. So that it is easy to understand why those who were satisfied with a small number of experiments should have been led to deny it altogether."

As if to rebuke physiology for its want of boldness in interrogating nature directly, when her processes are hid-

den from sight, a rare accident gave Dr. Beaumont an opportunity of studying gastric digestion in the person of Alexis St. Martin, in whom a gastric fistula had been established, as the result of a gunshot wound which carried away a portion of the abdominal wall. To those observations our science is incalculably indebted; and by imitating on animals the same kind of experiment which had at first been accidentally performed on man, we have corrected the errors into which Dr. Beaumont fell, and can now give an almost perfect account of the whole process of stomach digestion.

Our knowledge of intestinal digestion rests absolutely upon experimental research. For, as the pancreatic fluid and the bile are emptied close together into the upper part of the intestinal canal, it is only by obtaining these secretions separately, through pancreatic and biliary fistulæ, that we can study their nature, and their influence on different articles of food. And by the same method we have learned all that we know of the phenomena of absorption, the office of the lacteals, the changes which take place in the chyle during its passage through the mesenteric glands and thoracic duct, the function of the spleen, the physiological relations of the portal circulation, and the glycogenic functions of the liver. All the truths concerning the

CIRCULATION

that the arteries are blood carriers, like the veins, and not filled with air: that the blood coming to the right side of the heart passes round to the left side, by performing a circuit through the pulmonary vessels, and not directly through an interventricular septum; the direction in which the blood flows through the veins: the uses of the valves in those vessels; the nature and object of the heart's movements: the coincidence of its systole with the transmission of blood through the arteries, of its diastole with the delivery of blood to it through the venæ cavæ and the pulmonary vein: the continuity of the arterial and venous

circulations; the rate of movement of the blood and the degree of pressure exercised by it in different parts of the vascular system; the forces which maintain the capillary circulation; the peculiarities of the circulation in the lungs, in the portal system, in the brain, and the modifications produced in the latter by variations in the general conditions of the circulating system, could not possibly have been ascertained in any other way than by direct experiments on living animals.

Such is briefly an outline of the principal discoveries which physiology has made, by means of its most valuable and trustworthy means of research, *vivisection*. To enter into the detail which some demand, would be to write a history of medical science. For this we have neither the space nor inclination. It has been done, and well done, again and again, until the story is as tedious as a twice-told tale. Nor is there any inducement to enter the lists against a class of sciolists, who, finding it easier to doubt than to examine, puff away the strongest evidence with a contemptuous sneer.

To estimate its value is only to become acquainted with the progress of medicine in all its departments, a progress indissolubly bound up with the advances of physiology and anatomy. He has but slight appreciation of the scientific spirit who asks of any knowledge, "what advantageth it?" The discoveries which have been of greatest usefulness to our race were not made with any reference to their utility. They have always been unconscious workers, building better than they knew, simple-minded and single-hearted men, loving truth for its own sake, to whom God has given "the vision and faculty divine." Very rarely has it been vouchsafed to them to reap the fruit of the seed they sowed. But all history is full of examples of the benefits which have accrued from the application of truths which seemed at first to be but barren and isolated facts. Those who believe all knowledge to be useful as a discipline, as well as a means to an end, will pursue its acquisition without stopping to inquire what

result will come of it; the while not unaware, that from the storehouse of facts which the toil of centuries gathers is supplied the material for those wide generalizations by which great principles are afterwards evolved and great laws are established.

The fact is, that so far from over-estimating, it is difficult for us fully to appreciate the service which medicine has derived from this department of science. Her greatest discoveries have become so incorporated with our elementary knowledge, which they underlie, that, like the air we breathe, the water we drink, they seem cheap and common. But if any one could strip himself of all that he has learned through "experimental physiology," he would stand aghast at his ignorance of the simplest guides of practice, and the most trivial facts of pathology. This, which is impossible to individual experience, can be accomplished by a comparison of the unknown and unstable ground on which our predecessors of only the last century stood, with the secure and firm footing we now enjoy. Without an acquaintance with what experiments on living animals have taught us of the nervous system, of respiration, of the circulation, of digestion, of nutrition, of animal parasites, what would we know of hysteria, of paralysis, of tic douloreux, of those sympathetic disorders of organs which make up so large a part of the phenomena of disease. We would still be cutting the seventh pair of nerves for facial neuralgia, and bleeding, blistering, firing and purging anæmic women for fancied spinal lesions. Our operation for the cure of aneurism would still be irrational and mischievous. We would be in utter darkness as to the cause of asphyxia, and therefore unacquainted with the means of restoring life through artificial respiration. The phenomena of inflammation would remain a hidden mystery; the diet and regimen of the sick be regulated by custom and caprice, and a case of trichina disease, mistaken for acute rheumatism, would fill us with amazement at its intractable nature and fatal termination. These constitute some of the more obvious errors which a

sound physiology has corrected; but our art is so wholly indebted to her for all of accuracy that it can boast in diagnosis pathology and treatment, that, as we have already said, to consider the subject in detail would be to expand an essay into a volume. Rational medicine recognizes in "experimental physiology" not merely a willing, accomplished, and untiring servant, but an *alma mater et nutrix*. When, therefore, it is affirmed that vivisection is useless for the purposes of science, we need only turn to the history of medicine, every page of which illustrates its immeasurable value, to set the seal of falsehood on the assertion.

But it is further alleged that it has led to much error and confusion. This was at first inevitable. It has for its object to discover the functions and relations of the various organs of the human body. Its experiments, therefore, must be performed on those animals most nearly allied to man in the scale of being. Now the higher we rise in that scale, the more complex we find the organization to be, and the difficulty of securing the necessary conditions for isolating the special function that happens to be under examination, from the disturbing influences of other organs, increases *pari passu* with its importance to the life of the whole. From the accumulated experiences of others, as well as our own, we gradually learn to separate what is accidental and variable from what is essential and constant Whatever errors may have arisen are corrected, whatever truths may have been elucidated are confirmed by the labors of our co-workers; and thus, by accretion of knowledge, acquired tact and dexterity in method, and finer and more numerous instruments of research, we gain, day by day, that skill and confidence which give increasing accuracy and value to our labors.

If he who asserts that phyisology has performed no useful work, is ignorant of the history of medicine, he who charges it with uncertainty is ignorant of the history of science.

All the sciences have passed through certain phases,

which are not merely a part of their common history, but an expression of those fixed conditions of human thought in obedience to which every system of philosophy has evolved itself. The organical sciences have proved no exception to this universal law of growth. The fundamental ideas, upon a proper appreciation of which the development of each depends, are at first but vaguely apprehended. Only by slow degrees do the conceptions arising from these distinctly shape themselves, and not until they have been worked out with perfect precision are those positive truths discovered which make possible the successive generalizations that crown and complete the work.

It follows then, if each science is based upon certain fundamental ideas, themselves containing the elements of those truths which the science afterwards developes and formulates, that its certainty will depend on the correct apprehension of the conceptions involved in these, and its progress on the demonstration of their accordance with observed facts. But where general laws have to be deduced from isolated phenomena, and true theories constructed on limited data, in attempting to unfold the fundamental idea, large space for error must of necessity exist; more especially as the first advances have to be made through hypothesis alone. As experience corrects the faults, and observation points out the deficiences of these, the circle is gradually narrowed, until a point is finally reached from which a more certain method of progress becomes possible.

This, which is true of all the inductive sciences, has also been the history of physiology—with this difference, that the greater complexity of the phenomena with which she has had to deal, and, by consequence, the deeper profundity of their laws, has assigned her a lower grade of progress than has been attained by those sciences whose relative simplicity has made possible, thus far, a higher degree of development.

Much time, we admit, has been wasted in a fruitless attempt to form a distinct conception of life, and discover the causes of vital action. And it was a great step taken

in the right direction when physiology, abandoning this hopeless search, began the examination of the vital functions separately, with a view to determining those relations of similitude and succession which are denominated laws. But as such a movement implies a scientific classification, and as any effort to decompose so complex an idea as life, presupposes an extensive acquaintance with the relations of individual organic actions to the organism, the analysis can never be completed until the totality of the functions is thoroughly comprehended. This is the task to which "experimental physiology" stands pledged, and just in proportion to the activity with which it is prosecuted, will our conceptions of the processes of organic life become correspondingly clear and definite. It is by such a method alone that we can hope to arrive at that ultimate synthesis for which we are now collecting and classing the material. And the splendid triumphs it has won during the last half century, demonstrates beyond a shadow of a doubt its certainty and value.

If the method then be correct, what can be said of the means of research. To wait on the infrequent opportunities afforded by "the experiments performed for us by Nature," would be a most tedious and uncertain labor at best. But this is the least objection that can be brought against it. The graver and insurmountable ones are, that we cannot prescribe the conditions of such experiments, and are left therefore without any method. When the disease is one of an internal organ, moreover, we can never be certain to how great an extent that organ is affected, or whether others are not also involved. The sharp, clean blade of a scalpel, directed by a skillful hand, does its work efficiently and appreciably; but disease is a bungler, not confining its operations to a point of election, but embracing in its erratic processes of irritation, congestion, inflammation and destruction, a wide area of neighboring tissues. To affirm, in one breath, that observation of the phenomena of health and disease is quite sufficient for all the purposes of science, and in the very next to

raise the objection against experimental physiology, that its results are so obscured and vitiated by the shock which its surgical procedures occasion that nothing but confusion and error can follow, is monstrous. The vivisector is generally able to predict the amount of shock which an operation will give rise to, and knows very well to wait until this, usually slight, has disappeared. But who can measure the disturbance of the vital forces in disease, when the springs and balances are no longer in harmonious relation, and the whole machine is violently disordered—the nervous system oppressed, the secretions deranged, and the life of all the blood touched corruptibly. The study of morbid phenomena is useful, as confirming, illustrating, and occasionally enlarging the knowledge derived from another source; but the very power of interpreting these phenomena correctly is gained from our previous acquaintance with the laws of health, and for this, as we have seen, we are almost wholly indebted to experimental physiology.

We might be content to leave the matter here, considering the charge of cruelty as sufficiently answered in demonstrating the utility of experiments on living animals. For surely it will not be denied that if the knowledge thus gained is of eminent value in lessening human suffering and saving human life, it is legitimately obtained at the expense of pain or death to any number of inferior animals. But as the charge is one of brutality as well as incompetence, it may be worth our while to consider how far it is either true or consistent.

And in the first place, the pain inflicted in experiments on animals is on the whole very small. Many of them, endowed with an inferior organization, suffer far less than man would from the same amount of injury. Their cries, and struggles, and movements, however purposive the latter may seem, are not always to be taken as evidence of suffering. This is a matter upon which only scientific men are competent to pronounce, and it can be proved that in many instances they are nothing more than exhibi-

tions of reflex action. Every one has seen the headless trunk of a chicken, just decapitated, jump about in contortions whose violence would seem to indicate the acutest agony. But the uniform testimony of those who have suffered injury of the spinal cord is, that there is absolute insensibility of all the parts below the seat of lesion, where this has been complete.

If a frog be pricked with a scalpel, it may raise its leg and push away the knife, or hop off. If its head be now cut off and the puncture repeated, it will endeavor to remove the cause of irritation in the same way. If, after decapitation, a drop of strong acetic acid be applied over the internal condyle of the femur, it will wipe away the acid with the foot of the same side, but if this be amputated, it will after some ineffectual efforts perform the same action with the foot of the opposite side; this extraordinary energy of the spinal cord as an independent centre, which is always in inverse proportion to the development of the cerebral hemispheres, is no proof of any special endowment of the cord in the lower animals; nor is the adaptiveness of the movement any evidence that it takes place through the mediation of sensation. The same phenomena are manifested by apoplectic patients and anencephalous infants; and since Marshall Hall directed special attention to the subject, a large number of paraplegic cases have been accumulated, the facts obtained from which enables us to give a positive affirmation on the subject. Indeed, many of the most complicated actions, requiring the coördination of a great number of muscles, are wholly involuntary, and some of them the will cannot even imitate; as the act of deglutition, which requires that the fauces be stimulated. In the act of sucking, which is perfectly performed by brainless infants and puppies, and in the acts of coughing and sneezing, the muscular combinations are effected without any design.

What blunders unscientific persons are likely to commit when they sit in judgment on such cases, is happily illustrated by Mr. Fleming, who, unconscious of the gentle irony of the anecdote, quotes Dr. Elliotson as saying: I

am sure that the following experiment would have caused Dr. Brachet to be blackballed in any respectable society in England, for a physiologist was blackballed at the Royal Society from the horror excited by an account read just before, of an experiment in which rabbits' heads were crushed, though, *on reflection, it was found that these experiments were unattended by pain, and he was honorably elected on an early occasion.*

In the next place, animals are usually rendered insensible by the inhalation of chloroform, ether, or the smoke of the "puff-ball," before operations are performed on them, and during the experiment, except where the nerves of sensation are the subject of examination; and in the latter cases the determination of the point on which information is desired is soon settled, and the animal put out of pain. Even in such cases the suffering is much less than is popularly supposed, for it is only on irritation of the spinal ends of the nerves that sensibility is manifested, all the parts supplied by such nerves being insensitive after section of the latter.

The popular clamor against the barbarity of slicing, puncturing and lacerating the brain, is a mere waste of breath. So far from inflicting "an amount of torture which the mind shrinks from contemplating," it is unattended by any sensation whatever. The entire organ may be cut away piecemeal without the animal exhibiting any evidence of pain. Nor, like the cerebrum, have the nerves of special sense any endowment of common sensibility. The slightest cut of the skin, the most sensitive portion of the whole organism, gives rise to greater suffering than any amount of injury inflicted on the cerebral hemispheres: but it excites less sympathy because it does not *look* so cruel.

And what can be said of the consistency of those who claim immemorial usage as a sanction for inflicting suffering on birds, beasts and fishes, for pleasure, ornament or support, and deny the same right to the physiologist, though he finds in experiments on living animals the only

trustworthy method of enlarging the bounds of a science whose discoveries have been a greater boon to humanity than all the other arts and professions practised by man.

But "to kill is one thing, to torture quite another," the sentimentalist replies. "The ox dies by a blow on the head, and his sufferings are at a minimum." Suppose we grant this gentle euphuism about the blow on the head is quite satisfactory as regards the ox: do cattle, sheep, calves, pigs, hogs, as well as oxen, suffer nothing along their road to market, over-driven or penned in suffocating railway carriages, without food or drink, through the long summer day? Are they all killed by a blow on the head? or are not the great majority of them hung up by the legs, to have their throats cut and to die in the convulsions of hæmorrhage? Does the pietist whose heart is torn with cruel indignation at the thought of a sparrow's death under the air-pump, shrink from the bare sight of a *paté de foie*, or reject shellfish with horror, mindful of their agonies in the boiling pot? Does the fair, whose conscience is

> "So charitable and so pitous,
> She wolde wepe if that she saw a mous
> Caughte in a trappe, if it were ded or bledde,"

ever think with what suffering of snare, and gun, and dog, the plume in her bonnet, the sable on her robe, the soft slipper, the delicate glove, the fragrant perfume have been procured?

The noble Earl himself, President of the Society for the Prevention of Cruelty to Animals, has sometime in his lusty youth ridden to hounds. Perhaps he has felt the exhilaration of "the meet," on some crisp November morning when all the fields were white, and the hedgerows sparkled with the sharpened daggers of the frost. What a glow as the wind rushed by the tingling ear like a storm! What a triumph that double ditch and bank that threw out half the field! And the glorious run when the horses warm up to their work; and the splendid brush at the close: and the maddening cry of the hounds, thirty couple, "deep-mouthed and matched like bells;" and the sudden silence as though

every throat were paralyzed in an instant, and the supreme moment in the midst of the wrangling pack, every eye bloodshot with fury, every muzzle eager for a grip of the hated fur. From "breaking cover" to "finish" did his lordship once draw rein to reflect on the torture of the panting and draggled wretch he was hunting to death; or does he hold with the Ettrick Shepherd that the fox enjoys it as well as the men and the horses?

Are any of the members of the Royal Society for the prevention of cruelty to animals, sportsmen? If so, have any of them ever had the curiosty to go through the covers with the game-keeper a day or two after *abattue?* How many birds with broken wings, dying by slow tortures have they picked up? How many hares limping about with mangled limbs, some mortifying, all inflamed and exquisitely painful, have they seen? Or what excuse will be offered for the barbarous amusement of fishing?—have trout and gudgeons and worms no feelings! And if man may claim dominion over the beasts of the field, and may hunt and destroy them, not for food or for support, but for the gratifIcation of taste, or the relaxation of mind, or exercise of body, or in mere wantoness, without reference to the pain he inflicts, shall he be denied the occasional use of them for the advancement of the noblest work that can engage his energies, even though that use involves at times a suffering almost equal to that which the rod, the gun, and the trap inflict?

Out! with such puling sentimentality—such mockery of the divine essence of charity. If the Royal Society want some real beneficent work to do, let it go down into the reeking slums of Westminster where Lazarus lies in rags, almost at the gate of the queen's palace; or into the still fouler atmosphere of St. Giles and Whitechapel, poisoned with every moral as well as physical abomination; or into the starving districts of East London, and feed the hungry, and clothe the naked, and give light to those who sit in the shadow of death. "Are not these of more value than many sparrows?"

When Christian Englishman were blowing Sepoys from the mouths of cannon, and murdering Princes in the face of day, and sacking cities with sickening outrages, the Royal Society uttered no protest. Let her batter at the doors of Parliament until the hand is taken from the throat and the knee from the breast of prostrate India, every foot of whose soil has been won by rapine and murder, from the days of Clive to Campbell. India! which, when the British savage was running wild in his unhewn forests, was possessed of a civilization whose magnificence is still attested in the ruins of her gorgeous architecture, the brilliant fragments of her letters, and the mutilated body of a religion whose moral code is only inferior to that which our Master himself taught. When it has purged the common weal of such enormities, we will be more willing to listen to it on the minor canons of the law.

Retinal Hæmorrhage in Malarial Toxæmia.

By J. DICKSON BRUNS, M. D., New Orleans.

H. H., 44 years of age; born in New York; laborer. Comes from another ward of the hospital November 2d, 1882. Large and well-made man, but very anæmic looking. General health was good until about two months ago, when he had an attack of malarial fever, consisting of five paroxysms (tertian type). Has had no fever for six weeks. A few days ago, "suddenly discovered a dimness to come over sight, as though objects were blurred." No pain. Eyes present nothing abnormal on inspection. Vision (after atropia), right eye=$\frac{15}{C}$, left eye=$\frac{20}{L}$. Ophthalmoscopic Examination: Media clear. Outlines of both nerves indistinct—woolly, with some fine specks of blood dotted over them. A general view of fundus shows numerous hæmorrhages in the retina. These hæmorrhages are situated in every direction and are of various sizes. In the left eye, the most conspicuous one, which is about two nerve diameters long and the same broad, is about half a diameter below the nerve. In the right eye, the largest one,

situated in the region of the yellow spot, is about two nerve diameters long and broad.

Diagnosis: Retinal hæmorrhages—malarial.

Clinical history: Nov. 9. Hæmorrhages (specks) upon the disc have disappeared, and the temporal side of the right nerve seems bluer than it was. Absorption is beginning at the centre of the large hæmorrhage. Its border presents an unbroken band of dark red, while the centre is buff, mottled with dark brown. There are some shining white points scattered here and there about this central area.

Nov. 13. Spleen not much enlarged might be about 7x9 inches, but not more. Fundus evidently clearing up.

Nov. 21. Vision (without atrophia), right eye=$\frac{20}{C}$, left eye=$\frac{20}{L}$. The nerves in both eyes are undoubtedly swollen, and hazy around margins. This is so of right nerve with the exception of a segment at temporal end of horizontal meridian, which is flat and bluish. All the hæmorrhages have decreased in size and many have disappeared. The large spot near right macula has now assumed a rhomboidal shape. Its border is a bright orange-red, the centre stippled with black dots and shining points. The large hæmorrhage near left nerve has a similar border but the stippling is done in dark red dots on a pale orange ground.

Nov. 26. Vision, right eye=$\frac{20}{C}$, left eye=$\frac{20}{XL}$ (most of).

Nov. 29. Vision right eye=$\frac{20}{CC}$, left eye=$\frac{20}{L}$.

Dec. 4. Vision, right eye=$\frac{16}{LXX}$, left eye=$\frac{20}{XXX}$. Hæmorrhagic spots nearly all gone, especially in left eye.

Dec. 9. Vision, right eye=$\frac{20}{LXX}$, left eye=$\frac{20}{XX}$ (a few letters). Nearly all the hæmorrhagic spots have disappeared. Outlines of both nerves woolly and indistinct.

Dec. 14. Atropia in eyes. In right eye four spots still remain. Two small ones are N. W. of the nerve. The large one near the yellow spot is now about ½ a disc's breadth wide. Towards the nerve it is bordered by a red crescent, for the rest it is composed of black and of shining dots. In the left eye there are two spots. One just below the nerve, about two disc's breadths long, is a bright red-

dish orange color stippled with pale yellow, the other, a small one, is S. W. of the nerve. Both nerves woolly, especially right, which is somewhat bluish at temporal side

Case No. 2. D. K. 38 years old. Born in Ireland, laborer. Applied at clinic, January 5th, 1883. General health has always been good up to one month ago, when he had a malarial attack. At first, chills came every day, but now every other day. Had a heavy chill January 3d and when he awoke the following morning found that everything looked red.

Patient is a large healthy looking man, slightly anæmic. Has an internal squint in right eye, and says that he has not seen out of this eye for years. No pain in either eye. Sight of left eye is dim. Vision, right eye, count fingers at 6 feet; left eye $= \frac{20}{CC} + \frac{1}{30'8} = \frac{20}{LXX}$. Nothing abnormal to be noted on inspection. Ophthalmoscopic examination. Left eye. Outlines of nerve, and details of fundus around it hazy. Vessels tortuous. Above and to left (nasal side) of disc are two spots of blood lying over retinal vessels. At the yellow spot is a hæmorrhage shaped like a meat chopper, the handle (upper end) of which covers the fovea.

Diagnosis: Retinal Hæmorrhages—Malarial.

Placed upon

Cinch. Sulph.	gr.x.
Fowler's Sol.	gtt. ijss.
Ferri Dialys.	gtt. xv.
Tinct. Cinch Co.	ʒij.
M. and S.	1 ter. in die.

Jan. 6th. Right nerve and surrounding retina seem to be in same condition as left, but I can discover no hæmorrhagic spots in this eye. Left eye: There are three extravasations which are accurately located to-day as follows: One small one immediately below nerve, lying over larger artery and vein as they run downwards; another small one on same vein lying close along it, and scarcely broader than the vein itself, as it runs straight out below the yellow

spot; the third is the large meat chopper-shaped spot situated at macula as described above.

January (about 10th inst.)—Hæmorrhage No. 1, is much smaller; No. 2, has disappeared; No. 3, has lost its handle. Patient never returned after this date. Extra note by Dr. F. N. Ogden, at this time resident student in charge of the department. On night of January 4th, patient was delirious, and had a violent nose-bleed during a paroxysm of malaria.

I publish these cases treated at the Charity Hospital Eye and Ear Clinic, because I have been unable to find in the limited number of authorities to which I have access, any mention of malarial toxæmia as a cause of retinal hæmorrhage These hæmorrhages, however, are so common in pernicious anæmia that their occurrence in the closely allied malarial anæmia cannot cause us any surprise.

Case No. 1, was watched for a long time, and the changes which took place in the spots carefully noted. I could not help thinking as I followed these changes from day to day, that perhaps the pigment frequently found at the sites of former hæmorrhages is not after all *deposited*, as seems to be taken for granted, but is simply the coloring matter of the long ago *extravasated* red blood corpuscles.*

Both cases were treated with benefit in the usual manner with arsenic and iron. In case No. 1, it will be noted that the left eye had nearly recovered normal vision when the patient left the hospital, while the vision of the right eye, in which the largest hæmorrhage was situated over and around the macula, was still very defective, and I cannot but think that a certain amount of permanent damage must have been inflicted. In case No. 2, in which the largest extravasation also occupied the fovea and its neighborhood, vision was also seriously impaired, though not so seriously as in case No. 1.

* I would be glad to learn from more experienced *confreres* if there is any thing in the appearance of these "pigment deposits," which would at once overthrow such a supposition.

Charity Hospital.

Gynecological Notes. (Ward 35.)

(Service of Prof. E. S. Lewis.)

[Reported by E. Laplace, Resident Student.]

The cases treated during the month of October are as follows: Anteversion, 1; anteflexion, 2; retroversion, 2; retroflexion, 5; chronic pelvic cellulitis, 1; pruritus vulvæ, 1; laceration of cervix, 2; amenorrhœa, 2; prolapsus uteri, 2.

Among the above, we may cite the following as worthy of special interest:

Amenorrhœa.—Patient aged 24 years; began to menstruate at the age of 15 years; would have a menstrual flow but once every six months, until her marriage five years ago; had one child four years ago, and has never menstruated since. She presents all the symptoms incident to her condition, such as headache, vomiting, pains about the loins. Has no displacement of the uterus.

She was given a pill composed of 2 grs. of permanganate of potassium, 1 gr. of black oxide of manganese morning and night. After having taken three pills, she observed a flow lasting one day and a half; this being the first one since her marriage five years ago.

In another case aged 20 years, menstruation had been stopped for three months; no signs of pregnancy or of displacement of the uterus.

The same pills were administered as above, and the flow returned within two days.

These gratifying results have been obtained in the only two cases in which the pills were tried.

Retroflexion.—E. U., aged 26 years, suffering three years from innumerable neuralgic pains about the back, dyspnœa and cephalagia; also from vesical tenesmus with incontinence, so much so that her case had been mistaken by a country physician for one of gravel. On examination, she presented a well marked case of retroflexion. There being some vaginismus, cotton plugs soaked in glycerine

were introduced into the Douglas pouch every day. Churchill's tr. of iodine was applied to the os. After a week, a Thomas bulb pessary was introduced, and patient was placed on a tonic of quinia, iron and nux vomica. Injections of warm water were also recommended. Within ten days her ailments had gradually disappeared. She now still wears the pessary, and enjoys perfect health.

Anteversion.—The case was not very marked, but still sufficient to create constant and obscure pains about the hypogastrium, and cephalagia. On examination, the os was found engorged, slight anteversion, and a thick muco-purulent discharge issuing from the uterus.

The os was punctured and depleted of about one ounce of blood. Churchill's tincture of iodine was applied to the endometrium. A teaspoonful of equal parts of alum and sulphate of zinc, put into one pint of warm water was given as an injection twice daily. A tonic of quinia, iron and nux vomica was also administered. At the expiration of twelve days the patient reports a cessation of all former troubles, and feels well.

Obstetrical Notes. (Ward 39.)

DORSO-POSTERIOR PRESENTATION OF THE ELBOW.

M. S., aged 18, was taken with labor pains September 4th, at 5.30. P. M. Pains were full and strong, recurring at regular intervals of about ten minutes.

On physical examination, the long diameter of the tumor laid crosswise in the mother's abdomen.

At 9 P. M. the os had dilated to the size of a silver dollar, the pain increasing in strength and frequency.

Whilst making a digital examination, the waters escaped, revealing the presentation of the right elbow, the head of the child resting in the direction of the right sacro-iliac synchondrosis.

The house surgeon being advised of the facts, chloroform was administered to complete anæsthesia, and podalic

version was resorted to. The child's feet having been grasped, were drawn down, and the labor was completed as a breech presentation with the feet originally presenting. The front of the child's body was fronting the pubic arch during delivery, and the chin having engaged under the arch of the pubis, the occiput swept over the perinenm, the face subsequently following.

The child, being almost suffocated, lived about thirty-six hours, by dint of the efforts at artificial respiration practised upon it.

The discovery was also made that it had an imperforate anus: there was, however, a delicate sinus leading from the perineum to the base of the scrotum, where it formed an outlet for the meconium.

TRANSLATIONS.

LACTO-VARIOLIC INOCULATION.

(Translated from the "Monument à Edw. Jenner, ou Histoire Générale de la Vaccine, à l'Occasion du Premiere Centennaire de son Invention par le Docteur Burggraeve. Bruxelles, 1875.)

By Thos. Layton, M. D.

Doctor Basil Thiele, inspector of the health service at Kasaw, doubtless on account of the difficulty of procuring vaccine matter, conceived the idea of mixing the virus of variola with milk. This process, described by its author in Henke's Journal (1839), was as follows: variolous matter was preserved for ten days between vaccine glasses closed with wax; then, after having diluted the matter with warm cow's milk, inoculation was practised, as with ordinary vaccine. Doctor Thiele says, when this precaution is not adopted, true variola occurs, which may still, nevertheless, undergo transformation into vaccine, through the process above mentioned.

The pustules obtained by means of this mixture, says the author, are much better marked than in ordinary cases.

but after about ten transmissions, they end by presenting the characteristics of true vaccine, when, however, care has been taken at each transmission to mix the virus of variola with a small quantity of milk taken directly from the cow.

Notwithstanding what the Russian physician may say—and we are willing to believe that he deceived himself—the principle of variola remains itself always; that is, it is highly contagious. It is just as if one were to say that the venereal virus, mixed with milk, lost its power of contamination. How many children ought to be spared syphilis were this the case, whilst on the contrary, it is through the maternal milk that they are poisoned!

Dr. Thiele's discovery, however unfortunate it might be, met with competition: thus, Mr. Bracuet at Lyons, and Mr. Robert at Marseilles, claimed to have performed similar experiments, at the same time. Here is the manner in which Mr. Bousquet, in his *Official Report of Vaccination performed in France in 1853*, expresses himself concerning lacto-variolic inoculations:

"The injustice done to vaccine will not cause us to deny the excellence of lacto-variolic inoculation, which, however good it might be, still had disadvantages which have justly caused a preference to be given to vaccine. A return to lacto-variolic inoculation should be allowed only if,—which is an impossibility,—vaccine should die out, or,—what might happen,—if in presence of an epidemic of variola, the physician could not dispose of any vaccine matter to ward off the scourge."

This is not the way, however, in which the matter is understood: the enemies of vaccine are divided: some will have nothing to do with it, because it does not protect to a certainty; others, because it protects too much. They are agreed only upon one subject, which is to go back to the inoculation of variola, although all are not of one mind, as to how such inoculation should be practised. We are acquainted with some persons, who fear nothing from such practice, and who would wish to see it carried out in its entire purity, as was the custom with those who first inoculated. Others are not so bold: they dread the violence of the virus of variola when left to itself, and they endeavor to lessen it in some way or other. It has been proposed to reduce its strength with mercury, but, in our days, the preference has been given to milk. Such practice conceals an entire theory: it supposes that variola has

passed from man to the cow, and that during this passage it has undergone that modification which makes of it vaccine. The more these suppositions are taken as true, the more will there be room for astonishment that variola and vaccine should have been so wide apart.

But we have not done with these suppositions: it is further necessary to admit that the change which takes place in the virus of variola, in the system of the cow, can also be produced by a drop of milk, in the open air. However it may be with regard to these suppositions, the authors of whom we are speaking, and particularly Mr. Bracuet, have felt the necessity of giving them some backing, by loaning them the support of experience. They have done this: they inoculated a mixture of milk and virus of variola: an eruption appeared, which was purely local. The operation, thirty times repeated, thirty times gave the same result, and this uniformity went not a little way towards contributing to prolong the illusion of the theory. We learn in a letter written to Mr. Diday by Mr. Bracuet, that out of thirty inoculations not a single child died, whilst two children who had been vaccinated did succumb. Mr. Bracuet has too much common sense to hold vaccine responsible for these reverses which he mentions: that same common sense should have left him in doubt concerning the influence which he attributes to milk over the virus of variola.

It is no doubt rather remarkable that thirty lacto-variolic inoculations should all have caused merely a local eruption without general symptoms; but similar facts were by no means scarce in the days when it was customary to inoculate the virus of variola in its purity. We invite Mr. Bracuet and his partisans to read the reports published by those who were the most celebrated inoculators; they will see if we are telling the truth. And if their opinion has been based upon experience, experience too will change that opinion. We beg them to continue their experiments: they will meet with facts which will open their eyes, and make them return to that sound doctrine from which they have, for a while, been drawn away by the luck or chance so often noticed in matters of observation. Dr. Descieux (of Montfort l'Amaury), a practitioner who is as enlightened as he is conscientious, was attending a woman attacked with variola; three of her children were around her; two had not been vaccinated; unfortunately, at the time, he had no vaccine matter; he was expecting some, when he

read in some journal that a mixture of milk and variola-virus might be used as a substitute: he made this mixture, with which he inoculated the children, making four incisions in each arm. The sores at the points of insertion occurred as usual and followed the course customarily observed; but, behold, on the eighth day one of these children was taken with fever, and three days later from twenty-five to thirty elevations appeared over its body. The other child showed only the sores of insertion, besides which, on the eleventh day, five or six supernumerary points not far removed from the spots where the virus had been inserted.

Notwithstanding this second eruption, Mr. Descieux still remained undecided: on the eighth day, he again took virus from the last child, and transmitted it to the three others. This inoculation cleared up all his doubts; the newly inoculated being all three seized with a well-defined, although light, attack of variola. In one, the general eruption made its appearance on the seventh day, and in the two others on the eleventh.

A midwife, who has the good habit of vaccinating all the children she receives, inoculated five infants with lacto-variolic virus: of these, three had a complete, though rather mild, attack of variola, and the two others, who were barely two months old, had confluent small-pox, and their lives were in danger. A final proof of the small efficacy which milk has in modifying variola, was afforded by the fact that these experiments gave rise to an epidemic of small-pox, which affected six vaccinated persons.

The epidemic was not at an end, at the time when Mr. Descieux wrote the above interesting details. At all events, whatever backset may have been experienced by the new practice, as a consequence of these experiments, the new practice proves that inoculation of variola is not by any means as dangerous as it has been said to be, for the purpose of extolling vaccine. If however, inoculation is so benign, the question may be asked, why do we not come back to it? We will reply as follows: why return to it, if the two methods (vaccination and inoculation) are equally good? In ranking ourselves among those who defend inoculation on the score of its benign character, we cannot forget however, that unfortunate cases have occurred. These were rare, no doubt: the proportion has been estimated as being one in five hundred, or one in one thousand; but even were they still more rare, it would be more preferable not to run the risk. Finally, and this is the principal reason,

if inoculation acts so kindly towards those who were placed under its protection, it took a cruel revenge on others, by scattering broadcast the germs of contagion, to this degree, that it had made permanent all the year round a disease which, before, occurred in spring and autumn. To such as regret inoculation we wish to say that vaccination has nothing to fear by the establishment of a comparison: both methods are excellent, and their claims to our confidence are identical. Inoculated variola differs from natural variola only in this, that it takes its own time and enters the system through another channel. Vaccine is evidently merely a variety of variola, and a variety so closely connected that it scarcely differs from the type. Thus reasoning confirms that which experiment affirms concerning their reciprocal properties."

We have a right to be surprised at the above conclusion, especially when we consider the body of Mr. Bousquet's report: it is impossible that there should be any parity in their claims to our confidence between a process which protects from the dangers of variola, and another which is liable to produce that disease, along with its entire train of symptoms, both sporadic and epidemic. Variola is variola, and vaccine is vaccine, notwithstanding what Mr. Bousquet may say: that "variety," of which he speaks, "as being so closely connected, that it scarcely differs from the type," does not exist.

In Jenner's time, the same language was already used; and that was the objection which the partisans of inoculation urged against vaccination. It was only subsequently that the class of persons affected with vaccinophobia made their appearance, claiming that vaccine is the direst of misfortunes, since it presents a natural and fatal evil, one which neither the Divine nor the human law gives us the right to oppose. What shall we believe? Evidently it must be sound reason and experience, which every day bring additional confirmation to Jenner's views.

MARGINATE EXFOLIATIVE GLOSSITIS.

(*Journal de Medecine et de Chirugie Pratiques.*)

We have already directed attention to this affection, relatively rare, but of which a thorough knowledge is really important, inasmuch as its nature is frequently misunderstood and regarded as a syphilitic manifestation, thus often

entailing a wrong treatment and prognosis. M. G. Lemonnier has just published a complete study upon this subject which enables us to determine very accurately its character. The affection, which has been described successively under different names, and particularly under that of *spotted tongue* (Bridou), *epithelial desquamation of the tongue* (Gautier), *desquamative syphilide of the tongue* (Parrot), has recently been called by Fournier, in one of his lectures, *marginate exfoliative glossitis*. Anatomically, it is a very superficial inflammatory lesion involving principally the epidermis and probably the most superficial portions of the derma, but in which parasitism plays no part. From an etiological point of view nothing is positively known of the causes which may give rise to it. It is met with principally in young children, but is also observed at a more advanced age. It may be coincident with digestive troubles, general debility and syphilis, but does not always exist in connection with these disorders. Besides, without assigning them as positive causes, M. Lemonnier has noticed the fact that in his observations it has been found in patients in whom the antecedents pointed to the use of tobacco, alcoholism, nervous troubles or moral emotions, arthritic diathesis, herpes, etc. Clinically, marginate exfoliative glossitis presents three essential symptoms: peripheric ruffling, exfoliation, and its nomadic character. Fournier explains it as follows: as for the exfoliation, it is a phenomenon common to many morbid conditions of the tongue, and by itself this symptom is not enough to allow us to attribute any specificity to the disease; but the same cannot be said of the peculiar circumferential elevation which is absolutely characteristic of this disease on account of the following peculiarties: 1st, a distinct elevation upon the periphery, whether healthy or diseased: 2d, the white or grayish coloration of this elevation: 3d, the sinuosities of the elevations describing often multiple arches analogous in appearance to groups of circumscribed syphilides, or even more capricious in certain cases and truly geographical.

But that which, even more than these peculiar attributes, attest the specificity of the lesion, is the character of its evolution. This strange characteristic is the mobility of the peripheric elevations, or ridges. If not from one day to another, then from one week to another, the lesion appears to change place, so much so that the arches occupying one place to-day are found in a few days on the

opposite side. The lesion positively appears to be itinerant; at least, it is subject to variations of form and aspect which are surprising.

M. Lemonnier adds certain details to this description. At the beginning, there is easily perecived often a small irregular circle of which the ruffled border or ridge is already perceptible by its elevation and coloration; often an arc of a very small circle with exfoliation along the length of its concave border. This small circle is commonly but four or five kilometres in diameter at the beginning. According to the variety of the affection, it may be seen sometimes to attack but one side of the tongue, and at other times both sides at once. As for the subjective symptoms, they are of very little importance; there is no pain, and the tactile and gustatory sensibilities are not interfered with.

Marginate exfoliative glossitis frequently passes by unperceived, because it may exist for years without the person affected having his attention directed to it, owing to the absence of any pain or other symptom. On the other hand, it is often confounded with diverse superficial inflammatory conditions of the tongue, such as cachectic glossitis, and that of convalescents, the glossitis of smokers and certain forms of mucous patches. Besides, the characteristics which indicate the disease, there are several which are of great importance from a diagnostic point of view. These are particularly the resistance to general treatment; the resistance to cauterization and topical applications; the long and almost indefinite duration of the lesion, and often its constant persistence under the same form. This affection is essentially benign, because it is never known to degenerate into a more grave disease, notwithstanding irritation of all kinds. The only treatment which appears to answer consists in the suppression of such irritants as tobacco, spices, alcohol, etc., and in the employment of emollient washes and powders. It is probable that the disease is really a superficial inflammation of the derma. L. F. S.

TEARS OF BLOOD.

(*From Journal de Medecine et de Chirurgie Pratiques.*)

Real tears of blood are a very rare event, but notwithstanding the objections which have been raised it appears that they do occur in certain conditions. Mr. Damalix

publishes an interesting article in the *Archives d'Ophthalmologie*, based upon a case observed by him in the service of M. Panas. This patient, a young girl, affected with non-convulsive hysteria, states that she is frequently affected with a flow of blood which stains her handkerchief when she wipes her eyes. This flow during certain periods occurs every night. Examination of the eyes showed that they were entirely intact, the attacks consisted simply of a very intense blepharospasm with photophobia and facial neuralgia.

M. Damalix insists upon the fact that this case cannot be considered entirely proven, notwithstanding the very probable veracity of the patient and her parents, since the actual occurrence has not been seen by him. But there exist in science several very remarkable facts which leave no doubt of the possibility of such a hæmorrhage; in the case of Hasner in particular, and in another of M. Brun, the observer saw the eye fill with liquid blood just as it fills with tears, without admitting the possibility of any trick, and in the latter case the microscope demonstrated the constitution of the fluid to be almost identical with normal blood. From a diagnostic point of view, it may be well to remark that under the name of tears of blood we should not include the different hæmorrhages which depend upon a lesion of the orbit or the mucous membrane. It may even happen that small polypiform vegetations, developed in the conjunctival *culs-de-sac* might escape attention and give rise to bloody flow resembling veritable tears of blood. These latter are absolutely independent of any ocular alteration and they have besides no fixed or regular evolution. Sometimes there is no apparent cause for their effusion; without any effort, without pain, the patient sheds tears of blood, the eyes become wet, the tears fall and run down the cheeks, and it is only when the patient wipes the face that the bloody nature of the tears becomes known. Again, at other times the patient is warned, he feels for a few moments pain in the forehead, the eyebrows, and at the root of the nose, or else there is a tickling sensation, a pricking or heat at the edge of the lids, soon the bloody tears make their way out and the painful symptoms disappear. The flow varies in quantity from a few drops to a wineglassful and only lasts a few minutes. These phenomena are essentially intermittent, sometimes occurring at regular intervals, but are almost alway transitory and coin-

cident with diverse hæmorrhages on the part of skin or mucous membrane.

As regards the etiology, the only fact obtainable from an analysis of observations made, is that tears of blood constitute a transient anomaly, showing itself in anæmic individuals and those inclined to hæmophilia; that they may take the place of the menstrual flow, but that their ground of prediliction, that where they present the most characteristic appearance is in the female of a nervous temperament: in a word, in woman, the hysterical woman.

L. F. S.

Translations from the *Deutsche Medicinal Zeitung.*

By Dr. A. McShane.

Influence of the patient's surroundings upon the action of remedies.—Dr. J. Dranïzen gave to each of ten persons twenty-five grammes of sulphate of soda, and made them remain in bed the whole day; to the same persons he afterwards gave the same amount of salt, but directed them to move about as much as possible. He found, 1, that moving about caused the purgative to act more promptly: 2, that the number of evacuations is also increased; 3, the increase in the quantity of the evacuations is due as well to an increase of the watery as of the solid constituent, sometimes the one, sometimes the other, being more notably increased.

Erisypelas as cure for certain tumors.—Hoffman, as early as 1675, observed the fact the supervention of erysipelas causes various diseases to disappear. However, only lately has this subject been more closely investigated and utilized in therapeutics. Dr. A. G. Michtoldt, of Nikolæw, Prussia, had under treatment a sailor, in whom a rapidly growing sarcoma was diagnosed, extending on the left side of the neck, from the sternum to the parotid gland. The doctor injected a five per cent. solution of chloride of zinc into the tumor, and on the eleventh day after the second injection, erysipelas appeared, which continued for eleven days. While the erysipelas lasted, the tumor gradually diminished in size, and about two months after the appearance of the erysipelas, it had entirely disappeared. Dr. M. attributes this to an acute fatty degeneration and disintegration of the sarcomatous mass.

Treatment of salivary fistula.—In wounds of Steno's duct, Dr. Kaufman, of Zürich, advises an attempt to obtain primary union by sutures and to wait for the wound to heal. In case a salivary fistula should result, he drains the cheek at the fistula by means of a thin small rubber tube emptying into the mouth, and thus provides a temporary discharge. With this treatment K. has cured three cases in ten or twelve days, after having tried, in the first case, the usual method without success.

A novel operation for the incontinence of feces.—Dr. Charles Kelsey, of New York, had under treatment a young man, aged 27, who was suffering from an ischio-rectal abscess, the internal opening of which was high above the internal sphincter, and the external laterally on the buttock far from the anus. According to the usual treatment, the abscess was opened, but the wall of the rectum was destroyed to a great extent, which gave rise to incontinence, especially of liquid feces and intestinal mucus. By careful examination it was discovered that the true muscle of the sphincter could forcibly contract, but, however, the part of the muscular ring corresponding to the rupture of the abscess did not perform its function. In order to relieve this burdensome affection he performed an operation which is also employed for prolapsus ani, that is, he cut several longitudinal incisions in the mucous membrane and made between them five cauterizations with the paquelin cautery, which he passed for a certain extent over the skin far beyond the anus: the cauterizations were, however, deeper and more intense towards the anal orifice, a powerful reaction set in, but after three weeks the patient could not only stand up, but also retain his feces. After six months, the stricture appeared, and the object in view had been attained.

Injections of water into the peritoneum.—Prof. Alberto Riva found that the peritoneum of the dog could easily hold from 1000 to 1200 grammes of water, when injected with antiseptic precautions. He considers it probable that the human peritoneum could likewise contain large quantities of water, believes that in this manner the loss of water in cholera can be supplied and the dangerous inspissation of the blood thus avoided, particularly as the injections, when not too copious, can be often repeated during the day.

Current Medical Literature.

REPORT ON THE CHOLERA IN EGYPT.

By Dr. KOCH,

Chief of the German Scientific Commission.

As the cholera epidemic was already rapidly subsiding when the Commission arrived in Egypt, it was hardly to be anticipated that that country would supply the material necessary to complete the investigation. And moreover, as the period when an epidemic is on the wane is hardly the best suited for inquiry into its etiology, the original plan was changed, and it was decided to make only the preliminary researches in Egypt, with the view, in case the epidemic should extend to Syria, of rectifying them in places which had been but recently attacked by the cholera, and which would therefore be likely to afford a favorable basis for the inquiry. The first portion of this plan has hitherto been carried out with very satisfactory results, for, during its stay in Alexandria, the Commission has found opportunity to collect the material necessary for preliminary inquiry. This success I owe chiefly to the courtesy of the physicians to the Greek Hospital, who, by giving us rooms for our work, and placing at our disposal all cholera patients who were admitted into the hospital, and the bodies of all who died there from the disease, materially furthered the objects of the expedition.

At the very beginning, the Commission obtained the use of two well-lighted rooms adjoining each other on the ground floor, one of which was devoted to the microscopical researches, and the other to cultivation experiments. The animals for experiments were placed in both rooms. But as their number increased, and it seemed too dangerous to make researches in the infectious matter in the same rooms in which we had to spend almost the whole day, the animals were removed into a completely isolated chamber in the old hospital, and the experiments on the infection were carried out.

The material so far used for the research has been obtained from twelve cholera patients, and from ten cadavers dead of the disease. Of the patients, nine were under observation in the Greek Hospital, two in the German, and one in the Arabian. In all cases the symptoms cor-

responded in every particular with those of true Asiatic cholera. Portions of the blood, of the vomit, and of the dejections of these patients were examined. As it very soon became evident that the blood was free from micro-organisms, and the vomited matters contained comparatively few, while in the dejections they were found in considerable numbers, the last-named were chiefly used in the inoculation experiments on animals.

Although the quantity of post-mortem examinations was not large, we were happily favored in obtaining from them extremely valuable material for the preliminary inquiry. The most varied nationalities were represented amongst the cadavers (three Nubians, two Austro-Germans, four Greeks, one Turk), at the most varied times of life (two children, two cases over sixty years, the rest between twenty and thirty-five years), and cases in which the disease had lasted very different periods. But the most important point is that the autopsy was made in most cases immediately after death, or at the outside, only a few hours later. The changes which putrefaction produces in the organs, and with especial rapidity in the bowel, and which render the microscopical examination of these parts most extremely difficult, could under these circumstances be excluded with certainty. I would lay especial stress upon this fact, because in other countries it would be scarcely possible to obtain material so well adapted for microscopical examination. The pathological appearances, like the symptoms during life, left no doubt that we had to deal with true cholera, and not, as was maintained in general quarters, with a so-called choleriform or choleroid disease

No organized infective material could be demonstrated in the blood, or in those organs which, in the case of other infective diseases, are usually the seat of micro parasites, viz: the lungs, spleen, kidneys and liver. In some cases bacteria were found in the lungs, but these, as we saw from their peculiarities of form and position, had nothing to do with the peculiar disease process, but had found their way into the lungs by the inspiration of ejecta from the stomach.

The contents of the bowel and the dejections of the cholera patients contained extraordinary quantities of micro-organisms belonging to the most different varieties, none of which appeared in preponderating proportion. There was

also an absence of other indications of a relationship to the disease-process.

The bowel itself, on the contrary, gave most important results. In all cases except one, which had died of a consecutive disease several weeks after recovery from cholera, bacteria of a definite form were found in the coats of the bowel. These bacteria are rod-shaped, and belong, therefore, to the bacilli: in size and shape they most nearly resemble the bacilli found in the glanders. In those cases in which the bowel showed the slightest changes to the naked eye, the bacilli were found to have penetrated into the follicular glands of the mucous membrane, and had there given rise to considerable irritation, as shown by the increase in the lumen of the gland, and the collection of many nucleated round cells in its interior. In many cases the bacilli had also penetrated behind the epithelium of the glands, and had proliferated between it and the basement membrane of the gland. They had, moreover, collected in considerable quantities on the surface of the villi, and had often penetrated into their substance. In the severe cases, which had been characterized by hæmorrhagic infiltration of the intestinal mucous membrane, the bacilli where found in large numbers, and were not limited only to the interior of the follicular glands, but had passed into the surrounding tissues, into the deeper layers of the mucous membrane, and here and there even into the muscular coast of the bowel. The villi were also in such cases extensively invaded by the bacilli. The chief seat of these changes is the lower portion of the small intestine. Had not this investigation been made on quite recent cadavers, the result would have been of little or no value, for putrefaction is able to produce in the intestine exactly similar bacterial growths. A year ago I had found these same bacilli, with a similar distribution, in a choleraic bowel which I received direct from India: but I had not been able to attach any value to it on account of this very reason, for it was always possible that they might be confounded with post-mortem putrefactive changes. Now, however, that any error arising from putrefactive phenomena can be positively excluded, this earlier discovery, made in four different Indian cholera cases, acquires extraordinary value. Nor is it an unimportant fact that the agreement of the appearances of the bowel in Indian and Egyptian cholera furnishes another proof of the identity of the two diseases.

The number of cadavers examined is certainly small:

but, as the bacilli were met with in all recent cases of cholera, while they were absent in the single case examined after the cessation of the cholera-process, as well as in several other cases dead from other forms of disease, and examined with special regard to this point, there can be no doubt that they stand in some sort of relation to the cholera-process. It cannot, however, as yet be concluded that they are the cause of the cholera. The relationship may be quite the reverse; it being quite as possible that the cholera-process produces such changes in the intestinal mucous membrane as to admit the penetration into its tissues of a definite bacillus variety of the many parasitic bacteria which are constantly met with in the bowels. Which of these two hypotheses is the correct one—whether the infective process of the bacterial invasion is the primary event—can only be decided by attempting to isolate the bacteria obtained from the diseased tissues, to cultivate them, and then to reproduce the disease by inoculation experiments on animals. For this purpose it is absolutely necessary to have at one's disposal animals which are susceptible to the infective material in question. Hitherto, however, in spite of every endeavor, we have not succeeded, in an indisputable manner, in conveying cholera to animals.

Numerous experiments have been made on rabbits, porpoises, dogs, cats, monkeys, pigs, rats, etc., but always without success. The only results of any value in this respect are those of Thiersch, who fed a number of mice on the contents of an intestine from a cholera patient, and observed that they were seized with diarrhœa and died. This experiment has been confirmed by trustworthy investigators, like Burdon Sanderson, but it has also been impugned by others. Since it was of the highest importance to discover an animal susceptible of cholera, it was necessary to repeat these experiments. It was very improbable that a requisite number of mice could be speedily obtained in Alexandria, and fifty mice had already been brought from Berlin for this purpose, and the infection experiments were at once commenced upon them. But, besides these, monkeys, which are the only animals susceptible of certain human infective diseases, such as small-pox and relapsing fever, were also used for experiment. Lastly, the attempt was made to infect some dogs and chickens. But, in spite of every endeavor, these experiments have hitherto been entirely without result. The most varied attempts were

made, and the animals fed with the vomit, with the cholera dejections, and with the contents of the bowel obtained post mortem—given in some cases quite fresh, and in others after it had stood for a time in a cold or warm room, in others, again, dried—but in no case did choleraic symptoms appear: on the contrary, the animals continued perfectly well. Besides this, the bacilli found in the contents of the bowels and in the intestinal walls were cultivated, and animals were fed, and in some cases inoculated with the product. In some cases septic manifestations followed inoculation, but in none was cholera reproduced.

That the *materies morbi* in an active form is very often contained in the dejections of cholera patients is shown by numerous facts, especially by the frequent infection of washerwomen who have had to wash the soiled linen. A case of this kind occurred in the Greek Hospital during the present epidemic—a washerwoman, who was exclusively employed on linen of cholera patients, having sickened of the disease.

It may, therefore, be regarded as certain, that of the many substances used in the experiments, some at least must have contained infective material: and the fact that no result was obtained may be attributed either to the animals used being completely insusceptible of cholera, or to the proper mode of infection having yet to be discovered. The experiments shall be continued, and modified in both directions, but there is little prospect of any result being obtained with the material at present at our disposal.

For it is not very probable that the reason of the failure of the infection experiments is to be found in those circumstances only. There is still a third explanation, for the correctness of which there is much to be said. It is well known that, in any given place attacked by cholera, the disease subsides long before all the inhabitants have been affected by it: and although the morbid material may be concluded to be distributed widely over the whole neighborhood, yet fewer and fewer people fall ill, and the epidemic dies out while many individuals still remain capable of infection. This phenomenon is only to be accounted for on the hypothesis that towards the end of the epidemic the infective material declines in activity, or at least becomes uncertain in its action. If, then, when the epidemic is declining, even human beings cease to be susceptible to the infection, it is hardly to be expected that the contrary should be the case with the animals experimented on,

concerning whose susceptibiltty to cholera we as yet know nothing. In our researches only such subjects were available as were to be collected towards the end of the epidemic, and their incapability of conveying the infection was to be expected with more or less certainty. It still remains possible that under favorable circumstances—*i. e.*, at the commencement of an epidemic—one might succeed in animals, and by that means one would at once discover whether the bacilli which I have shown to exist in the intestinal mucous membrane are the true cause of cholera.

Though, therefore, the results so far obtained by the Commission are still far from completely solving the problem, and though they have little practical value in the struggle against cholera, yet, considering the unfavorable circumstances, and the short duration of the investigation, they may be considered as very satisfactory. They completely answer the original aim of the inquiry, and, indeed, exceed it, inasmuch as the constant discovery of characteristic micro-organisms satisfies the first condition which must be fulfilled in the investigation of an infectious disease, and thus secure a definite goal for further research.

From the above statement it may be gathered that in Alexandria the Commission will not be able to advance further towards the solution of the problem than it has hitherto done.

[Dr. Koch states his reasons for not advising that the Commission should follow the epidemic in Upper Egypt, where the conditions would be highly unfavorable to the investigation, and expresses the wish of himself and colleagues that they should be allowed to continue their researches in India, and especially in Bombay, where a a sudden cessation of cholera is not likely. He then continues :—]

I have now to communicate the result of certain undertakings which the Commission has found opportunity to carry out concurrently with their investigations on cholera. Egypt is very rich in parasitic and infectious disorders, and it was, therefore, not difficult to obtain appropriate subjects for research, partly with the view of securing comparisons controlling the results obtained in connection with cholera, and partly with the view of arriving at further conclusions in certain important general questions regarding infective diseases.

Thus I have so far dissected two cases of dysentery. In the one, which ran an acute course, there were found in

the intestinal mucous membrane certain peculiar parasites which do not belong to the group of bacteria, and were hitherto unknown.

Next, at the Arabian Hospital, I dissected an Arab who had died of intestinal splenic fever (*Darmmilzbrand*). The disease is probably traceable to infection from sheep, which are imported in great numbers into Egypt from Syria, and die here largely of splenic fever.

Further, I had the opportunity, at the Greek Hospital, of observing six cases of bilious typhus—a disease with a considerable resemblance to yellow fever, and of great interest from having been frequently confounded with that affection. Three of the patients died. They have been dissected by me, and shall be thoroughly investigated.

Besides that, numerous investigations have been made as to micro-organisms in the air and drinking water in Alexandria: and, if I have time, I intend to make some observations on Egyptian ophthalmia.—*Maryland Med. Journal, November 10.*

[We are much pleased to insert the following editorial from the pen of the talented editor of the *New England Monthly* as we agree in every particular with his views on the question discussed.—Eds.]

The Code Question at the New York Academy of Medicine.—The settlement of the old and new code question was decided at the meeting of the New York Academy of Medicine on Thursday evening, October 18th, by a very decided rejection of the proposed amendments to the constitution—offered and advocated by Dr. Fordyce Barker—in the interests of the new code men, or to give them the benefit of the name they have chosen, the "liberals." The leaders on the floor of the Academy were Dr. Flint, Jr., who led the conservatives, and Dr. Loomis, who held taut reins over the mixed elements of the liberals. The two meetings of the fall campaign were—to put it justly—stormy and threatening. The question has been decided in the Academy on the rejection of the proposed amendments by a vote of 121 for and 92 against. The amendments were declared lost, as they required a three-fourths vote to adopt them. The conservative forces did not turn out as well as anticipated; this was due to the *extreme* conservatism of a very large number of the most reputable physicians in New York, who were averse to the action

and course of many of the leaders on their own side. The injudicious induction of a boastful element in the councils and conduct of the plans of the conservatives, cost that side a large number of votes—the votes of men whose influence would have carried weight where strength was needed.

The question, in the Medical Society of the County of New York, was decided on Monday evening, October 22d. It turned on the election of officers for the ensuing year The conservatives placed in nomination Dr. T. Gaillard Thomas, the distinguished Gynæcologist, for President, and the liberals the well known medical politician of Albany, who was for many years at the Quarantine Station on Staten Island. The latter is known mainly in the State Medical Society for his adroitness on medico-political questions. His skill and experience were manifested in his election to the Presidency of the society that is known best on account of its pred-elections for politics and political intrigues rather than for scientific work or the advancement of medical education. The society has made a tinseled display of its efforts to put down quackery by arresting a number of persons practicing without a license—it has, at the same time, turned a deaf ear to suggestions to advance the curriculum of study and standard of medical education. It has, on this question, been ably assisted by the "professors" of the medical schools, who revel in the management of its affairs. The meeting was held in the large hall of the Young Men's Christian Association. The audience was large and the meeting was stormy and noisy. It was not until after midnight that the tellers reported the result of the election. Total votes cast, 599, of which some were blank: Dr. Vanderpoel 375 and Dr. Thomas 220. Of the 375 votes polled by Dr. Vanderpoel, eighty new recruits were introduced to the society a few minutes before the polls were opened. This created a breeze, but the liberals had the long odds of the presiding officer on their side, and he did his work thoroughly in their interest. Charges of bribery and infamous conduct were hurled at the liberals but they were laughed or sneered down by the "liberal" elements.

The feeling in New York among the better and more thoughtful physicians is one of extreme regret that the question has assumed such a shape, and been such a public professional scandal. The liberals on the other side, affect to believe that they have accomplished something that is creditable—deserving of public applause. We are inclined

to think they have gained a barren victory. The public has regarded it as a delectable feast without any special interest in either side. The liberals doubtless think otherwise. If the question could be put into the scales of public opinion, they would balance in favor of the elements of conservatism that are maintained by the large majority of the solid men of the profession, who have added to its science and have sustained the dignity of its calling. The conservative character of the profession of New England, and we might say of the profession of the whole continent, will be with the New York City minority. The free trade doctrines of the metropolis will find little favor among the best representatives of the profession in this country.—*N. E. Med. Monthly.*

A Candlestick in the Uterus.—A curious case is related in the *Courier Medical* of August 25, 1883. A woman aged 49, subject since puberty to periodical attacks of mania, but with lucid intervals, was admitted to hospital on account of an abundant and fetid leucorrhœa. Examination of the uterus showed a cervix covered with granulations and irritated by a discharge coming from within the womb. A sound which was introduced struck against a metallic body. This was removed and found to be the brass socket of a candlestick, measuring three-fifths of an inch in length, and four-fifths of an inch in diameter, with a rim one and one-half inch in diameter. This socket was evidently detached from a candlestick introduced at some time into the vagina. The last pregnancy dated back twelve years. It is hardly probable that the foreign body could have been introduced so long ago as the period of involution following that parturient act; and yet it is difficult to conceive of a contracted uterus, in a woman past the menopause, seizing and drawing up in its cavity so large a body as that described. (This case would seem to corroborate the views of the late Dr. Joseph R. Beck, of Fort Wayne, Indiana, and others in regard to the involuntary dilitation of the os and cervix uteri under sexual excitement

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Dr. Beck, in a remarkable paper which was published in the *American Journal of Obstetrics*, November, 1874, entitled "How Do the Spermatozoa enter the Uterus?" relates two instances in which he had the opportunity of

witnessing this phenomena. In one of these cases, the labia were separated by the left hand, so that the os uteri (of a prolapsed uterus) was brought cleary into view in the sunlight. The right fore-finger being then swept quickly three or four times across the space between the cervix and pubic arch the orgasm almost immediately occurred.

"The os and cervix uteri had been about as firm as usual, moderately hard, and, generally speaking in a natural and normal condition with the external os closed to such an extent as to admit the uterine probe with some difficulty; but instantly that the height of the excitement was at hand, the os opened itself to the extent of fully an inch, as nearly as my eye could judge, made five or six successive gasps, as it were, drawing the external os into the cervix each time powerfully, and, it seemed to me, with a regular rythymical action, at the same time losing its former density and hardness, and becoming quite soft to the touch. All these phenomena occurred within the space of twelve seconds of time certainly, and in an instant all was as before."

If these observations are correctly reported, they furnish a credible explanation of the candlestick story.—*Western Medical Reporter.*

Less than a year ago Dr. Ringer, of London, called the attention of the profession to the emmenagogue powers of manganese. Since then it has been extensively tested in America, and the results are uniformly gratifying. When the amenorrhœa depends on a weak condition of the sexual apparatus, the action of this drug is specially favorable. But as amenorrhœa and menorrhagia often depend upon the same condition, this remedy is here efficacious.

A weak organ may be unable to start a flow, and when started it may be unable to stop the flow. Then in amenorrhœa or menorrhagia depending on weak sexual organs, this is a useful, if not the most useful remedy. General anæmia may or may not exist.

Dr. Martin, of Chicago, reports in the *Medical Record* a number of cases treated by this remedy. He gives the permanganate of potassa as the most convenient form to administer manganese. It is given in doses of two grains or more, and may be given once or several times a day. It is best given after meals, and dissolved in considerable water. It is difficult to prepare in pill form, as any organic

substance decomposes it. When perfectly dry it may be put into capsules. In cases of young girls, where there is trouble in getting menstruation established and regular; in mothers, about weaning their babes, who have the same trouble; in the legions, both married and single, whose menstruation is stopped by taking cold, in all these cases the profession has long needed something prompt and reliable.

Also, in stout, plethoric women who often have feeble sexual organs and suffer from either no flow at all or too much flow. But more especially is this remedy valuable in weak, anæmic women and girls, reduced either by overwork or disease. Dr. Martin reports the case of a girl who had not menstruated for four months in consequence of phthisis. She menstruated in one week after permanganate of potassium had been added to her treatment.

This remedy, in addition to being a general tonic, stimulates the uterus and its appendages.

As this is still a new remedy for these troubles we would be glad to publish further experience with it.—*Medical World.*

Dr. J. M. Da Costa has been testing the therapeutic value of the salts of nickel. The sulphate proved of some value in obstinate diarrhœa. The bromide, however, is the most valuable of all, and will probably take a permanent place in the materia medica. Its action is similar to the other bromides, but a smaller dose suffices. Five to seven and a half grains is an average dose, and ten grains is a decided one. It relieves congestive forms of headache and quiets the system generally. In epilepsy it does quite as well as other bromides, but, as above mentioned, a much smaller dose suffices.—*Medical World.*

Regazzoni (Edinburg *Medical Journal*, May, 1882,) describes a new method of treating hydrocele which has seemed to him extraordinarily successful. It consists in puncture and evacuation of the sac in the usual manner, after which a small bougie is introduced and allowed to remain for 12 hours. In this manner, inflammation and plastic adhesion of the walls of the sac are induced and a radical cure results. 250 cases are said to have been treated in this manner without a single failure. The

rationale of this method would appear to be good, and no dangerous results ought to be apprehended. We have not had the opportunity of testing the method, and injections of carbolic acid have thus far proved all that could be desired. We have also had good results from infusion of quercus alba, which has an action similar to that produced in Heaton's operation for hernia.—*Western Medical Reporter*, Oct. 1883.

Simple Remedy for Intermittent Fever.—Professor Tommasi-Crudeli, in a letter to the Italian Minister of Agriculture, calls attention to a simple remedy which has been used with good results by Dr. Maglieri. A lemon freshly gathered, and unpeeled, is cut into very thin slices, put into an earthenware jar with three cupfuls of water, and boiled down to one cupful. The decoction is strained through a cloth, the remains of the lemon being firmly squeezed. The decoction ought, if possible, to stand over night in the open air, and be drunk some hours before the access of the fever is expected.—*Brit. Med. Jour.*, Oct. 4, 1883. *St. Louis Courier of Medicine.*

Disadvantages of Anthropophagy.—In 1848, says the *Australasian*, a man by the name of Sutton was killed, roasted and eaten by the warriors of a savage tribe in New Caledonia. Sutton was affected with syphilis, and all those who ate of him died in a short time afterwards, presenting symptoms of true poisoning.—*Union Med. du Canada. St. Louis Medical and Surgical Journal.*

A Case with an Extremely Slow Pulse. — An emaciated patient, aged fifty-three, complains of periodical vertigo and headache. At apex of heart, two prolonged murmurs. The pulsations of the heart or any of the arteries are nineteen or twenty to the minute, and irregular.—*Med. Zeitung. St. Louis Medical and Surgical Journal.*

Sad Fate of the Yellow Fever Microbe.—M. Lacerda, of Lisbon [more probably of Bahia, Brazil], found in the liver and kidneys of yellow fever subjects a parasite, supposed to be the infective principle. Portions of these organs containing the parasite were exam-

ined by MM. Cornil and Babes, but these expert sceptics ascertained that Lacerda's microbe consists of bits of vegetable tissue and pigment. *Exeunt omnes.—Medical News*, November 24.

When you examine the hand of a patient, and find on it the evidence of palmar psoriasis, be that hand the jeweled and perfumed one of a queen or the dirty paw of a beggar, it is the hand of a syphilitic.—*Hebra. American Practitioner.*

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

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Communications relating to medicine are invited from every source. Matters of more than ordinary importance are occurring daily to country physicians, brief reports of which this Journal would be glad to get.

In sending such communications, and others pertaining to Editorial Department, address DR. RUDOLPH MATAS.

Matters pertaining to business should be addressed to DR. L. F. SALOMON.

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EDITORIAL.

THE INOCULABILITY OF CANCER AND PROFESSOR SAPPEY'S THEORY OF ENCEPHALOID.

Is cancer inoculable? is a question that has always been full of interest to the profession, and it is not surprising that this feeling should have been intensified lately, when so eminent a teacher as Professor T. Gaillard Thomas suddenly allowed the full weight of his authority to kindle into greater activity the fears already entertained of so dreaded a contingency. His subsequent and loyal retraction of opinion and the investigations set on foot by Dr. Paul Mundé,—which prove the exceeding rarity, if not impossibility, of cancerous inoculation, through sexual congress, at least,—have greatly calmed the general alarm and tended to re-establish our former composure on the subject.

But evidently our assurance and tranquility are not to remain unbroken; for a theory—the offspring of histological observation—has just been propounded, and by no less competent an observer than Professor Sappey, of Paris, which, if realized, would threaten a return to former anxieties. Fortunately, it is a *theory*, a mere nebula, we believe, which temporarily obscuring, like so many others, the horizon of research, is liable to be swept into oblivion by any heavy gust of criticism.

It is unique, however, and worthy of the brief exposé that we can afford to give of its main features in these columns.

Heretofore, we have regarded as carcinomatous "all tumors atypically constructed, and whose physiological type or derivatives consist of true epithelium." This, at least, is now the most popular doctrine, and that taught by such leaders as Billroth, Waldeyer, Rudnew, Rindfleisch, Klebs, etc., though of course it is opposed by rival theorists—the connective tissue party, formerly headed by Rokitansky, and at present by the no less formidable Virchow and redoubtable Stricker. These differences, however, do not concern us at present; we merely recall them to say that M. Sappey differs from all these writers on the pathogenesis of carcimona—encephaloid, at least—in claiming as its prime factor a hitherto unsuspected body,—the white corpuscle. According to Sappey, encephaloid is purely local in its incipiency, circumscribed to a very limited area of a lymph channel of the organ or tissue in which it begins. Under the influence of some *unknown* cause, the morphological elements (lymph corpuscles, white cells) contained within the lymphatics in the affected part undergo a retrogressive, degenerative, change. This modification is apparently of a fatty character. At first the lymph corpuscles alone furnish sufficient material to the primarily degenerated focus, but afterwards the mass is supplied by white cells from the adjacent capillaries. As soon as a healthy white cell is brought in contact with a degenerated one, it is affected in identically the same manner—it degenerates.

loses its irritability, its nutritive and migratory capacity, and finally, is struck with sterility. It thus becomes a fixed constituent of the growing mass, which, like the individual corpuscles, would simply die if it only received a limited supply of cells,—an end that is not attained on account of the fresh numbers that are being heaped on the mass from the myriads of cells continually brought to it by the nutrient vessels.

In his paper, which was recently read before the French Academy (*Gazette des Hopitaux*), he reports the results of four observations on the state of the blood in this condition. He found that the blood withdrawn from the veins of an encephaloid contained large quantities of characteristically degenerated corpuscles; and in his last case, one of encephaloid involving the tongue and neck, the whole mass of the blood presented the characteristic appearance, microscopically speaking, of general cancerous infection, i. e., fatty degeneration of the leucocytes.

Here, consistently with his views, he says: "In order to explain the constitutional character of the malady, the *cancerous virus* was imagined. Under this name a principle altogether fictitious, inaccesible and undefinable, has been designated. The observations that have just preceded demonstrate that this mythical *virus* is now amply represented by the degenerated white corpuscles which the blood continually carries away from the cancerous focus. Therefore, the cancerous virus is not an abstract *something* intended to connect the local with the general affection,—it is in reality a formed element, dispersed throughout the economy and ready to react with contaminating danger upon any similar corpuscle with which it may be brought in contact." According to Sappey, a single degenerated corpuscle is a miniature cancer in itself, which has the power of transforming a healthy corpuscle, through some unknown catalytic or fermentative quality, into a similarly degenerate body. Carcinoma, at least encephaloid, would thus virtually become inoculable, like syphilis and vaccinia.

Unfortunately for Dr. Sappey, his theory and observa-

tions militate against experiment and sound experience. The most eminent histologists (and certainly those cited above are respectable) would be hardly willing to admit Dr. Sappey's view that the bulk of encephaloid cancer is constituted by a mass of degenerated white corpuscles. It is certainly a fact that the real nature of the cancer cell has not been fully ascertained, as the diversity of opinion abundantly proves; yet, Professor Sappey's four observations are far from sufficient to demolish or affect the positions held on the subject.

Neither are we ready to admit that the cancer cell which he describes as existing in abundance in the cancerous cachexia (which it causes) is endowed with a fermentative power, so to say, by which it is capable of reducing similar corpuscles to its own condition; it is true that diffuse carcinosis or cancerous metastasis could be easily explained by it, yet if it were true, simple cancer juice ought to be an eminently inoculable fluid, an opinion which the experiments of Dupuytren, Vogel, Billroth, and more lately those of Wile, would certainly contradict. It is true that other experimenters, as Langenbeck, Weber and Folin, claim to have obtained different results, and to have succeeded in reproducing secondary cancerous tumors identical with the neoplasm from which the juices were taken. If the alleged results are correctly reported in the light of other observations, there must have been in the juices used, as suggested by Formad, some cells belonging to tumors from which the liquid contents for injection had been taken (Agnew).

Furthermore, the opinion of pathologists at present is that carcinomatous cells increase by multiplication, endogenous growth, never by accretion or addition, as M. Sappey would teach. The cancer cell, under the light of the most advanced histology, is a living, active and reproductive body, and it is only through this property that it has the power to travel along the lymphatic tract to a neighboring ganglion which it attacks and infiltrates only through its active *reproductive* powers,—but for M. Sappey,

it is otherwise,—a barren, sterile body which is solely dependent upon a steady and continuous reinforcement of like individuals from that inexhaustible source, the blood, in order to sustain its attacks and to perform its ravages. In fact, each one of these cells, says M. Sappey, runs through four epochs in the course of its existence; each has a period of invasion, a period of growth and development, a period of decline, and very probably one of dissolution. The first two epochs are doubtless passed in the blood plasma; the third in the hard portions of the tumor, and the last in the circulating apparatus, or in the substance of the tumor. When softening and ulceration begin, the oldest cells are first destroyed, and those which sojourn longer in the circulation undergo a destructive reduction until they disappear *in toto*, making it in this way possible for an encephaloid to become (theoretically) curable.

If we were to seek the path of truth through the tortuous maze of conflicting opinions, we would undoubtedly find ourselves lost,—it is a satisfaction, any way, that at least one criterion is left to us for guidance in the teachings of experience, and these, as Mundé's last investigations happily prove, are emphatically opposed to the doctrine of cancerous inoculability.

J. MARION SIMS.

The public press, through its rapid media of communication, has already made known to our readers the deplorable loss that the profession has sustained in the death of the illustrious surgeon whose name heads these lines. So much has been said lately of the life, character and methods of Sims in public and professional journals, that the briefest allusion to his career will suffice to confirm the extraordinary merits that were known to distinguish his life from that of his fellow practitioners. J. Marion Sims was born June 25th, 1813, in Lancaster district, South Carolina. He graduated at South Carolina College in 1832, and studied

medicine at Charleston and at Jefferson Medical College, Philadelphia, from which he graduated in 1835, commencing practice a year later at Montgomery, Ala., whence he removed, in 1853, to the city of New York, where, excepting during the intervals of his sojourn in Europe, he continued to reside until the time of his death, November 13th, 1883.

It was during his seventeen years residence at Montgomery, that he conceived and perfected various appliances and operative measures that have since immortalized him in connection with that branch of surgery which, up to that time obscure and insignificant, may be said to owe its practical origin solely to his marvellous efforts. Is it necessary to recall the discovery of the speculum that bears his name, and by which a cavity hitherto inaccessible to the knife was first fully exposed to the surgeon's inspection and manipulation; to the silver sutures; to the various new details in the operative manual for vesico-vaginal fistula, and other surgical complaints of women? No one who has read medicine is unacquainted with his remarkable production, "Uterine Surgery," and no one would dare question the imperishable benefits thus conferred on womankind. Neither need we linger over his magnificent achievements in New York, his founding of that great monument, the Woman's Hospital; nor to his great triumphs in the capitals of Europe, where he astonished the leading masters of the various schools with his brilliancy, dexterity and success in manipulations, totally unknown to them, until the advent of this "wonderful American."

All this is well known to every one in the medical world and needs no further commentary here. All that need be said, in addition, is that: "As a man, Dr. Sims was remarkable for an engaging sweetness of disposition, for a frank, affectionate and sympathetic cordiality, which were the ties of affection and esteem which bound him to innumerable friends in all quarters of the world. There were few cities in Europe and perhaps none in America, in which he did not count, among the most eminent members of the pro-

fession, personal friends who reciprocated with him feelings of the warmest attachment. His nature was guileless, his sympathies were tender and strong, his handsome and finely cut features spoke of a quickly-moved, impulsive, generous and feeling nature. * * * * He died suddenly, in the full posesssion of his physical and mental powers, and in the midst of work and almost on the day following a characteristic act of large and graceful hospitality. In the week preceding his death he had welcomed Sir William MacCormac in New York, by a great gathering of the profession there, characterized by the profuse and liberal hospitality which was a natural outcome of his warm-hearted disposition."

Essentialy a man of the South, as he proved, to his misfortune, on more than one occasion, Dr. Sims had always with us the warmest sympathies and profoundest admiration. Though he is dead, his genius will ever survive as the guiding spirit of that great work, so truly his own, and to which American surgery owes its world-wide popularity and renown—Practical Gynœcology.

J. DICKSON BRUNS.

The readers of this Journal and especially those who attended the lectures of the Charity Hospital Medical College, will be pleased to recognize in the article "Vivisection" the vigorous and eloquent pen of the late J. Dickson Bruns. The memory of that brilliant teacher and captivating speaker will remain ever fresh in the minds of those who were privileged to hear him. The present lecture, which was delivered in May, 1867, and published in the *Southern Medical Journal*, is one of the many "treats" with which the talented lecturer so frequently regaled his students. It will no doubt be again appreciated by those who heard it from the author's own lips, or by those who, not having thus heard it, will now have an opportunity of reading this production of one of the most beloved and admired of men.

Reviews and Book-Notices.

Insanity Considered in its Medico-Legal Relations. By T. R. Buckham, A. M., M. D. Philadelphia: J. B. Lippincott & Co. 1883.

The great interest which, from well known causes, has arisen in the matter of insanity trials, has within the past year given rise to many expressions of opinion from alienists whose views too often conflict in regard to tests for insanity and criminal responsibility of the insane. In treating the subject of insanity from a medico-legal aspect our author aims to show why insanity trials have become a reproach to both the legal and medical professions, and by pointing out the errors and suggesting their remedies endeavors to introduce a plan which will in future remove this disgrace from American courts of justice. While not agreeing with the author in some of his ideas, which we might pronounce utopian, at the same time we can commend the book to both lawyers and doctors as one in which there is much to be praised, and which contains much valuable information.

As a cause of the uncertainty of verdicts and the wide divergence of judicial opinions in insanity trials, the author places the fact that the "real premises are imperfectly understood. At every trial the question, 'What *is* Insanity?' is reiterated and no definition has as yet been furnished that commands general credence and acceptance." After giving at length the opinions of authorities upon this question, and the conflicting opinions expressed from the bench, in regard to criminal responsibility, the author proceeds, in Chapter II, to give his theory of insanity, which he designates the "physical media theory," as opposed to, or as a sort of compromise, as it were, between, the "psychical" and "somatic" theories, and concludes with the following definition of insanity, which he offers to the profession as an improvement upon any which has as yet been given,

and perhaps it is: Insanity is "a diseased or disordered condition, or malformation, of the physical organs through which the mind receives impressions, or manifests its operations, by which the will and judgment are impaired, and the conduct considered irrational." And as a corollary, "Insanity being the result of physical disease, *it is a matter of fact* to be determined by medical experts, *not a matter of law* to be decided by legal tests and maxims." In the "physical media" theory the author attempts to show that insanity is not, cannot, for obvious reason, be a disease of the mind, but is the result of physical disease as expressed through the mind: wherein this theory differs materially from the somatic theory of insanity, we are at a loss to conceive, except in a few unimportant particulars; in fact, as the author himself says: "In their medico-legal relations there is no practical difference between them."

At times we find our author inclined to be captious and sophistical, even descending at times to the absurd in his arguments. He does not regard mind as a function of the brain, for this would "necessarily preclude the possibility of an independent will." Space forbids us pointing out much of the sophistry indulged in by Dr. B., particularly in his efforts to demolish the somatic theory of the cause of insanity.

We are pleased to see the bold stand taken in regard to the responsibility of excessive drinkers. The author handles this portion of his subject (pp. 112 *et seq.*) boldly and fearlessly, holding that crime committed during a fit of drunkenness, brought on by the perpetrator's own free will, should not go unpunished, and the fact that a man may be unconscious of his act or its nature should not relieve him from responsibility when he has voluntarily placed himself in the condition for its performance.

The chapter on "Experts," occupying nearly one-half of the entire work, is the most important portion and deserving of particular attention and study. Suffice it to say, that were the main points of the recommendations therein contained followed, and could State legislatures be pre-

vailed upon to enact, or brought to see the necessity for the adoption of, such laws and reforms as here recommended, there would be no possibility in the future of such disgraceful scenes before our courts of justice as have been witnessed in the past. The book concludes with an appendix of thirty pages, containing "judges' opinions."

We heartily commend this work as a step in the right direction, and trust that it will prove the entering wedge in accomplishing the aim of the author, "to discover the cause or causes, the persons or classes, responsible for the miscarriage of justice, and to devise such remedies as, properly applied, will insure reasonable certainty of true verdicts in all insanity cases, and render life and liberty more secure, and erase that foul blot that mars the otherwise fair record of our judicial proceedings."

A Practical Treatise on Impotence, Sterility, and Allied Disorders of the Male Sexual Organs. By Samuel W. Gross, A. M., M. D., etc., etc. Second edition, thoroughly revised, with sixteen illustrations. Philadelphia: Henry C. Lea's Son & Co., 1883. New Orleans: Armand Hawkins, 196½ Canal street. [Price, $1 50.]

The demand for this monograph of Professor Gross has been so great, that the first edition was very soon exhausted, rendering a second necessary. No changes or additions have been made. Those who now possess the work will find nothing new in the second edition, but to those who are not in possession of it, we recommend it as one of the best upon this subject.

Prof. Gross handles the delicate subjects under consideration in a masterly and truly scientific manner, pointing out with clearness and conciseness the diagnosis, etiology and treatment of these "common and grave disorders," so that the general practitioner will be able to treat them intelligently and satisfactorily.

Impotence is divided into four classes, and the appropriate measures of treatment in each variety clearly laid down. The author does not take much stock in so-called

"psychical" impotence; of the one hundred and seventy-five cases of impotence of which he has notes, *one* was psychical; and he looks upon the doctrine, that many newly married men are unable to perform sexual intercourse through fear or other psychical causes, as false in fact and pernicious in regard to treatment, and believes in nearly all cases the condition is caused by some overlooked lesion of the prostratic urethra. Therefore, in all such cases, he believes in thorough examination and exploration of the urethra, instead of resorting to so-called moral treatment, which can do no good.

Under the head of Sterility, particular stress is laid upon the necessity of a careful microscopical examination of the semen, as a neglect to do this has left us somewhat in ignorance of the relative sterility of the two sexes, it being mistakenly assumed that, if the husband is able to ejaculate semen, the wife is at fault. Out of one hundred and ninety-two cases collected, the author found that the fault lay with the husband in seventeen per cent. In his own experience, the male was deficient in the proportion of one in eight, showing that the husband should be examined before a resort to inspection of the female organs of generation, as sterility of the husband occurs in one case out of every six.

To the text are added sixteen cuts illustrating normal and abnormal secretions, and the different instruments used in treating diseased conditions of the male genital organs.

The Principles and Practice of Surgery, being a Treatise on Surgical Diseases and Injuries. By D. Hayes Agnew, M. D., LL. D., Professor of Surgery in the Medical Department of the University of Pennsylvania. Profusely illustrated. Vol. III. Philadelphia: J. B. Lippincott & Co. New Orleans: A. Hawkins, 196½ Canal street.

This volume completes Agnew's great work on Surgery —probably the most remarkable production of its kind that has ever been published in America. In these pages, Agnew has devoted fourteen chapters to the consideration of surgical diseases of the larynx and trachea, the nose, naso-pharyngeal region and associated parts; diseases of the eye and its appendages: diseases of the ear; malformation and deformities; tenotomy in the treatment of orthopœdia: affections of the muscles, tendons, bursae and apo-

neuroses, surgical affections of the nerves, surgical diseases of the lymphatic system, skin, and subcutaneous connective tissues, syphilis; tumors; diseases of the mammary gland: electricity in its application to surgical therapeutics; operation for nerve stretching, and massage. It is unnecessary to say that all these chapters are thorough, able, masterly and original. Any one who has ever peered into the two preceding volumes needs no further argument of conviction, and this is certainly not inferior to its older companions. In our estimation, Agnew is *facile princeps* among surgical writers. Axiomatically clear in his definitions, elegant, graceful and forcible in diction, comprehensive and thorough in his treatment of any subject, it is not difficult to perceive the attractiveness and peculiar charm with which Agnew's text fascinates the student. Whether dealing with broad generalizations or specific conclusions,—general practice or specialty,—he is always sure to convince his reader of his magisterial authority. No one will fail to recognize, after reading articles on syphilis, tumors, or diseases of the eye, that what we have said is true. Agnew is a universalist in surgery; none of the confines of the specialist's domain seem to have barred the way to his quickly penetrative and powerful mind: he has had personal experience with almost every surgical evil, and how remarkably he has profited by it, any page of his book will tell. Anywhere that we open the volume, we find the suggestions of original research, in all pages vestiges of independent thought and most practical and judicious counsel. Agnew is eminently a teacher; he knows how to convince without dogmatizing, how to instil principle without forgetting the rigid test of critical experience. Here and there we may discover opinions that are not in consonance with accepted observation; he may be a little partial to some pet doctrine, for instance, he may have a weakness for the influence of inflammation on neoplastic formation,—he is peculiar in his theory of the relation of syphilis and chancroid; but these peculiarities cannot be classed even as eccentricities of originality,—they are the offspring of research and have, like all else that he believes, some good, substantial and definite foundation.

We are proud of this production; and we do not hesitate to say that it is one of the most brilliant and durable landmarks in the annals of our surgical history, and that it is in every sense the noblest exponent of progressive and enlightened American surgery.

NEW YORK, October 29, 1883.

To the Editors of the New Orleans Medical and Surgical Journal:

DEAR SIRS—Will you kindly draw the attention of your readers to the following announcement regarding the United States Pharmacopœia:

Any person having purchased a copy of the United States Pharmacopœia of 1880, and desiring a list of the corrections since made therein, can procure the same by sending a two cent stamp to

WILLIAM WOOD & Co., Publishers,
Nos. 56 and 58 Lafayette Place, New York City.

PUBLICATIONS RECEIVED.

Physicians' Daily Pocket Record and Visiting List. By S. W. Butler, M. D. Eighteenth year. Edited by D. G. Brinton, M. D. Philadelphia: Published at the office of the Medical and Surgical Reporter, 115 South Seventh Street. 1884.

Influence of Constant Use of High-heeled French Shoes upon the Female Form, Etc. By J. C. Busey, M. D. Washington, D. C.: Reprint from Vol. VII, Gynœcological Transact.

A Case of Severe Purulent Inflammation of the Ear, with Restoration of the Drumhead and Consecutive Dentalgia without Caries. By G. S. Peck, A. M., M. D., of New York.

The Pathology and Treatment of Venereal Diseases. By Freeman J. Bumstead, M. D., and Robert W. Taylor, M. D. Fifth Edition, revised and re-written, with Many additions, by Dr. Taylor. Philadelphia: Henry C. Lea's Son & Co., 1883. New Orleans: Armand Hawkins, 196½ Canal street.

A Manual of Pathology. By Joseph Coats, M. D. Philadelphia: Henry C. Lea's Son & Co., 1883. New Orleans: Armand Hawkins, 196½ Canal street.

Chemistry: Inorganic and Organic, with Experiments. By Charles Loudon Bloxam, Professor of Chemistry of King's College, London, Etc. From the Fifth and revised English Edition. Philadelphia: Henry C. Lea's Son & Co., 1883. New Orleans: Armand Hawkins, 196½ Canal street.

A Practical Treatise on Materia Medica and Therapeutics. By Roberts Bartholow, A. M., M. D. Fifth Edition, revised and enlarged. New York: D. Appleton & C., 1, 3 and 5 Bond street, 1884. New Orleans: Armand Hawkins, 196½ Canal street.

The Physician's Visiting List for 1884. Thirty-third year of publication. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. Sold by all booksellers and druggists.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year 1883. Washington: Government Printing Office, 1883.

Journal d'Anatomie et de la Physiologie Normale et Pathologique de l'Homme et des Animaux. Publie par MM. Charles Robin et G. Pouchet, No. 5 19me anne.

Annual Report of the Surgeon-General of the United States Army, 1883.

METEOROLOGICAL SUMMARY—OCTOBER. STATION—NEW ORLEANS.

DATE.	Daily Mean Barometer.	Daily Mean Temp'rature	Daily Max. Temp'rature	Daily Min. Temp'rature	Daily Rain-fall, inches.
1	29.950	80.9	88.0	73.1	....
2	29.941	81.3	88.7	75.3	....
3	30.075	81.0	88.6	73.0	....
4	30.134	80.8	88.0	73.5	....
5	30.140	80.3	86.3	73.5	....
6	30.171	80.7	88.0	72.3	....
7	30.121	81.5	88.5	73.8	....
8	30.084	80.3	88.0	73.0	....
9	30.092	79.3	86.5	73.8	....
10	30.060	77.2	83.6	71.0	....
11	29.994	76.8	84.0	69.0	....
12	29.949	78.2	85.0	69.9	....
13	29.960	77.8	85.4	69.2	....
14	30.047	79.0	85.3	71.3	....
15	30.113	77.7	84.7	70.0	....
16	30.100	75.0	81.8	65.2	....
17	30.030	75.5	76.5	72.0	6.61
18	30.022	76.2	78.0	72.0	1.37
19	30.026	77.0	81.0	72.3	.01
20	30.045	73.0	82.6	70.4	.11
21	29.980	73.7	79.7	67.2	....
22	29.956	64.4	73.0	66.8	....
23	30.007	68.0	71.5	63.1	....
24	30.009	68.5	73.7	61.7	.01
25	30.042	66.5	71.5	61.5	.02
26	30.029	60.8	66.5	49.8	....
27	29.056	73.3	80.7	59.0	....
28	29.915	77.0	83.0	69.6	.01
29	29.926	74.8	81.1	68.0	.29
30	30.089	67.8	73.8	62.2	....
31	30.179	68.8	75.0	58.9	....
Sums	.....	....	....	....	3.43
Means	30.037	75.4	81.5	68.4	....

GENERAL ITEMS.

Highest Barometer, 30.228.
Lowest Barometer, 29.865.
Monthly Range of Barometer, 00.363.
Highest Temperature, 88.7.
Lowest Temperature, 49.8.
Greatest daily range of Temper't., 21.7.
Least daily range of Temperature, 4.5.
Mean daily range of Temperature, 13.1.
Mean Daily Dew-point, 66.3
Mean Daily Relative Humidity, 75.1.
Prevailing Direction of Wind, N.-E.
Total Movement of Wind, 4896 Miles.
Highest Velocity of Wind and Direction, 22 Miles, W.
No. of foggy days, —.
No. of clear days, 12.
No. of fair days, 15.
No. of cloudy days, 4.
No. of cloudy days on which rain fell, 7.
Dates of Lunar Halos, —

COMPARATIVE TEMPERATURE.

1873	84.2	1879	81.0
1874	83.9	1880	81.3
1875	79.3	1881	82.8
1876	82.2	1882	73.3
1877	83.1	1883	74.5
1878	83.5		

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	8.30	1879	10.44
1874	4.82	1880	4.60
1875	8.61	1881	4.21
1876	4.44	1882	2.16
1877	2.54	1883	3.43
1878	5.31		

H. B. BOYER, *Signal Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM OCTOBER 27TH, 1883, TO NOVEMBER 24TH, 1883, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia	Total Mortality.
October 27	0	10	12	6	3	130
November 3	0	9	22	3	7	146
November 10	0	16	25	8	8	167
November 17	0	14	22	5	6	163
November 24		9	16	10	3	155
Total	0	58	97	32	27	761

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL

JANUARY, 1884.

ORIGINAL PAPERS.

The Influence of the Commercial Prosperity of the Country on Epidemics.

HARVEY E. BROWN, A M., M. D., Surgeon, U. S. Army.

The Annual Oration before the New Orleans Medical and Surgical Association for 1883.

A distinguished ex-senator, on being asked by a Washington lady, what most astonished him on his first introduction to the senate chamber, replied: "Madam, what I chiefly wondered at was, how in the world *I* ever got there."

Mr. President and Gentlemen of the Association:

Finding myself on a public platform for the first time in my life, having to address an intelligent and critical audience, and considering as I needs must, how much better material there is among our confrères from which you might have chosen, I must confess to sharing in great measure the surprise of my senatorial friend; mingled, I need scarcely say, with a deep sense of appreciation of the unmerited distinction you have so kindly bestowed upon me. It would be a presumption I am far from feeling were I to ascribe this to any other than the real cause—your own goodness and kindliness of heart, and as a compliment to the service of which I have the honor

to be the representative in this city. Be that as it may, I have only to say, I thank you, and to beg you, in the words of the bard of our juvenile years, not to

"View me with a critic's eye,
But pass my imperfections by."

Worthy of imitation is a custom, among those called upon to deliver similar addresses in England and abroad, to select for consideration some subject which may be supposed to be more or less familiar to the speaker, from previous study or habits of thought. In what I have to say I shall follow in a measure this praiseworthy method. Now, I must beg you not to compose yourselves to slumber in anticipation of an intensely scientific display of medical acrobatism, for I promise you faithfully not to breathe a whisper of the germ theory of disease; to have nothing to say about Listerism, antisepsis, or "recent progress in therapeutics," nor even to lull you into gentle repose with a learned disquisition on microphytes, micrococci, or the much sought for but erratic bacillus. I propose something, in my opinion rather more suited to an occasion like this, well aware as I am that these preliminary exercises are but intended to whet your appetites for more rational proceedings elsewhere, and will ask your attention to a brief consideration of the "Influence of the Commercial Prosperity of the Country on Epidemics," with some collateral remarks on the literary and professional services of our predecessors in connection therewith

It can hardly have escaped the attention of any one who has given the matter a thought, that the attitude both of the profession and of the community at large towards the question of epidemic disease of every kind, and especially with reference to yellow fever, has undergone a great change during the last few years. As has been recently well said: "Thirty years ago fear of yellow fever was unknown among "us. In those days people rarely ran away from the disease. "Friend visited friend and neighbor nursed neighbor, as "in any ordinary cases of sickness. * * * Yet fear has "become a prominent and startling characteristic of yellow

"fever epidemics, and public sentiment in regard to its "dangers, diffusiveness and communicability has been "completely revolutionized since those days."

"The compensations of calamity," wrote Emerson, "are "made apparent after many days. * * The sure years "reveal the deep remedial force which underlies all fact." It may well be that this hyperæsthesia of the public consciousness should conduce to such wise measures as will finally put an end to these periodic invasions which have now extended over nearly two hundred years of our history.

"'Tis a consummation
Devoutly to be wished."

And assuming for the moment that it may be so in very truth, we then stand on vantage ground whence we may profitably look back and survey the field over which we and our fathers have passed, before descending into what we hope will prove the pleasant and healthful regions of the future. No such inquiry could possibly be complete in one or fifty addresses and I shall consequently confine myself to a few moot points only, on the subjects I have already mentioned.

Very soon after the settlement of the colonies the importance of the West Indian trade attracted the attention of their merchants, and a brisk commerce was carried on in lumber, horses, fish and many other articles of colonial produce, which were exchanged in the islands for such of their commodities as were saleable at home, as well as for many articles of European manufacture which could be purchased there more cheaply than they could be obtained by direct importation. No result injurious to the public health followed this constant intercourse, for as Hume of Charleston has remarked, in the earlier history of this trade, it was chiefly carried on in small schooners, manned by acclimated crews: and what was true of Charleston was probably equally so of other centres of commerce.

Consequently, it was not until 1693 that yellow fever made its first appearance in this country, and then although unquestionably an importation, it was not due to commercial inter-communication, having been introduced into

Boston by the ships of Sir Francis Wheeler's fleet, which arrived from Barbadoes after the reduction of Martinique, having lost nearly half of their crews on the passage. A much more important result, however, followed the establishment of this trade; a result which had a vast influence on the political future as well as on the health of the colonies. The Imperial Government, jealous of the rapid growth and prosperity of the colonies, passed a long series of laws known as the Navigation Acts and subsequently as the "Commercial Monopoly." Twenty-nine of these enactments were put in force at various periods from 1660 to the earlier part of the eighteenth century, all having for their object the restriction of the trade of the colonies by forbidding it to be carried on except under circumstances that amounted to a virtual prohibition of anything like free traffic. Nevertheless, for many years the trade continued to flourish and without affecting the general health, but, after a time, as the dangers attendant on violation of the law became greater, with less attention paid to the personnel of the crews and the character of the cargoes (much smuggling being in all probability engaged in), we find yellow fever making its appearance at Philadelphia and Charleston in 1699, in New York in 1702, and again in Charleston in 1713, 1728, 1732, 1739, 1745 and 1748, while after 1702 it only appeared in Philadelphia in 1741, and in New York in 1745. This difference between the Northern and Southern cities can easily be accounted for if we consider that as trade languished in consequence of the baleful influence of the navigation laws, the more remote cities suffered the first, while the commerce of Charleston was kept up in a measure to a much later period. A further cause of this exemption of the Northern cities may be found in the passage by Parliament of the act forbidding free traffic between the colonies, so that New England and the North were excluded from trading with the Carolina plantations.

Notwithstanding that for a period of years the West Indian trade managed to survive the assaults made upon it,

yet the Imperial Government was more powerful than the colonies, and act followed act in rapid succession, each more stringent than the last, each one more rigidly enforced by the Board of Trade and Plantations, organized in 1696, to which was committed all matters pertaining to the colonies and which watched them with a jealous eye. As a natural result, the trade declined in importance after the first quarter of the eighteenth century, and, by 1760, it may be said to have ceased altogether. From about this time until the war of the Revolution there was practically no commercial communication between the colonies and the West Indies. During our struggle for independence the rigid blockade of all ports by British fleets of course prevented any re-establishment of such intercourse, but after the close of the war came a great demand for West India products and a general revival of trade took place which attained great proportions between 1790 and 1805. Now, what do we find interesting and important in the history of yellow fever during that period? Simply this: From 1762, when the colonial West India trade may be said to have died out, to its resuscitation in 1790 by the United States, *not one single case of yellow fever occurred within the limits of the old thirteen colonies;* while, with the return of peace and the renewal of the West Indian traffic, the long respite which the coast had known came to an end, as yellow fever prevailed in epidemic and malignant form in New York in 1791 and in Philadelphia and Charleston in 1793. After the passage of the Navigation acts of 1789 and 1792, the New York and New England merchants saw a wide field open to their enterprise in the West Indies and vast numbers of Northern vessels engaged in the trade, owned, commanded and manned by unacclimated persons and, as Hume and Carpenter have shown, these rarely came into port without bringing one or more cases of the disease. Consequently, from 1791 to 1805, we have a series of epidemics the most destructive and widespread that the country has ever known. Boston, New York, Philadelphia, Baltimore, Portland, Norfolk,

Charleston, all suffered severely. In 1807 all of these places became again suddenly exempt, and remained so until 1817. Why? Because, in the former year, the embargo was laid by Congress on all traffic from the United States to any foreign port. This remained in force until 1811, effectually crushing out the prosperous trade of the United States with the islands. The war with England followed and lasted until 1815, and it was not until two years later that commercial intercourse with the West Indies can be considered as re-established. In 1817, and subsequent years until 1822, yellow fever prevailed as an epidemic at all the great ports of entry. In 1822, New York and Philadelphia placed a voluntary restriction on commerce by the perfection of their quarantine system and they have remained free from the disease ever since, with the exception of trifling outbreaks in Philadelphia in 1853 and 1870, and in New York harbor in the latter year, while other cities, notably Norfolk, Charleston and New Orleans, which from their location have had a large trade with the West Indies and the Spanish main, and where quarantine, until late years, has been but imperfectly enforced, have been devastated by frequent epidemics.

It will doubtless have been noticed that, thus far, I have made no allusion to the Gulf ports of the United States as they now exist. I have thought it better to give these a separate consideration, because during the eighteenth century the territory in which they are situated grew gradually into importance under different political conditions from those of the original colonies. Nevertheless, a brief examination into their history will develop but a repetition of the facts already adduced. During the ante-revolutionary period the Gulf ports were in possession of either the French or Spanish, and carried on but little trade, and yellow fever was unknown within their limits, if we except epidemics at Mobile in 1702 and 1705, both of which are doubtful, and in 1765 at Mobile and Pensacola, at both places coincident with the arrival of British regiments from Jamaica, which were infected with

the fever. Towards the close of the century a brisk trade sprang up between New Orleans and the Spanish West Indies, and in 1796 the fever made its first appearance in our city. It again prevailed in 1801, 1802 and 1804, and still again in 1809 and 1811. Now, why (it may well be asked), if the fever was excluded from all other cities from 1805 until 1817, by the embargo and the war, should New Orleans have been an exception in 1809 and 1811? This, which at first sight seems a fatal flaw in my chain of coincidences, is really one of its strongest links, for, as has been just remarked, the trade of this city had always been more with the Spanish West Indies and with the Spanish main than with the other islands, in fact, it had the bulk of that trade, and the embargo—so far as concerned all countries, except France and Great Britain, and their colonial possessions—was raised in 1809, while as respects the exceptions mentioned it lasted until 1811.

From 1811 until 1817, the war period, this city, like all other American seaports, was free from the disease. In 1817, and for many subsequent years, epidemics were almost of yearly occurrence, notwithstanding certain abortive attempts at quarantine in 1816, 1817, 1819, and 1821.

In 1821, the transfer of Florida from the jurisdiction of Spain to that of the United States took place, and immediately thereafter there was a great rush of emigrants from all parts of the country to Pensacola. Foreign commerce, which had previously been of trifling importance, now increased greatly, and in the summer of 1822 yellow fever prevailed as an epidemic It had been seen but twice before in the history of the city, viz: in 1765 and 1811, but after this epidemics were numerous.

I shall pass over without special comment the years that intervened between the revival of commerce and the breaking out of the last war, for, on the whole, these were times of steadily increasing commercial prosperity, and we all know how terribly the South suffered in its many epidemics during this period. The civil war, however, furnishes us

with several curious instances which have a bearing on my topic. Wilmington, N. C., had not seen yellow fever since 1821, if we except a few cases in 1854. In 1862, as is well known, the Southern ports were blockaded, and Wilmington, by reason of her proximity to Nassau, became the principal port of entry of the blockade runners and her commerce increased to an extraordinary degree. In this same year yellow fever broke out on the second of August and soon became epidemic, causing a mortality of four hundred and forty-six out of fifteen hundred and seven cases, and this in a town of less than five thousand inhabitants. In the same year, Sabine Pass in Texas—a place so insignificant that it was not considered worth the expense of a rigid blockade, and one that before the war had absolutely no commerce except of a local character—became a resort for the blockade runners, and yellow fever prevailed in the village and among the Confederate troops encamped in the vicinity, and in the following year it spread from this point throughout Eastern Texas as far as Houston. In like manner blockade runners entered Pass Cavallo further down the coast, and Matagorda became temporarily a place of considerable importance—the same result followed.

During the first two years of the war the trade of Galveston was entirely destroyed by the severity of the blockade, but in 1864 the contraband traffickers, finding other harbors too dangerous, made that their favorite place of destination, and in that year, for the first time since 1859, the city experienced an epidemic of unusual severity.

It is within the memory of most of us, how remarkable was the revival of trade in all directions immediately subsequent to the war, and how thronged the Southern cities were with unacclimated adventurers. We all of us know how wide-spread and destructive was the great epidemic of 1867, the first outbreak that New Orleans had experienced since 1858, and Mobile since 1853.

I shall make but one remark in reference to the slave trade as a factor in the production of epidemics, because

I believe its influence to have been very much exaggerated. The following historical fact is however worthy of note in this connection. When the West Indian slave trade was suppressed by the activity of English and American cruisers, the traffic to Brazil enormously increased, and it was then, in 1849, that, for the first time in a century and a half, yellow fever made its appearance at Rio Janeiro and along the South American coast.

It is not my intention to draw any conclusions as to the much disputed question of the importation or local origin of the disease from this remarkable series of coincidences, but to leave my hearers to form their own opinions from the facts as stated.

We gather our knowledge of the foregoing from data collected with great industry by our precursors in medicine. Without their observation and patient research our information would indeed be of little value. Hence, I trust I may not be considered as wandering too far from my subject, if I devote a few moments consideration to the debt we of this generation owe to those of the profession who have preceded us in the careful records they have left of former epidemics, and in a generous devotion to duty sufficiently rare to be noteworthy.

The details of epidemics previous to 1793 are very meagre. The demands of practice under circumstances much more unfavorable than exist at present; the inexorable necessity of living (what Clifford Allbutt calls "the quiet heroism of daily life"); the want of that free and constant interchange of opinions and ideas which we enjoy; the absence of medical journals or other media through which their views could be preserved: these and other causes combined to render the physicians of the ante-revolutionary epoch in this country, rather workers than writers. Life presented them with too many stern problems to solve to permit them to pass their time in literary labors, however congenial or captivating such may have been. Thomas Bond, John Lining and Cadwalader Colden are almost the only names of any great weight, belonging to this period,

that are known at the present day. Others doubtless wrote or published, but in books or pamphlets that are long since out of print and forgotten.

With the celebrated controversy in 1793 in the College of Physicians of Philadelphia, in regard to the origin of the epidemic of that year a great impetus was given to the literature of yellow fever. The majority of the College of Physicians considered the disease an importation from the West Indies; the minority, composed of such names as Rush, Hutchinson and Redman regarded it of local origin and due to the insanitary condition of the city. The views of each had ardent partizans to uphold them, and thus began a discussion which has lasted under varying aspects almost to the present day. As epidemic succeeded epidemic in the closing years of the last century, other writers joined in the polemical strife with the immediate result of throwing a veritable apple of discord into the venerated ranks of the disputants, but with also the remote but happy issue of leaving to posterity a series of papers perhaps the most brilliant and valuable that any age has produced. Nor was the dispute confined to the physicians alone; it extended among thinking men outside of the profession. Among others Matthew Carey, the head of the great publishing house that so long bore his name, though not learned in physic, has given us a description of the great epidemic of 1793, which is almost classical. Among medical men, besides those already mentioned, was William Currie, whose work on "Diseases most Prevalent in the United States" can be consulted with great profit at the present day; while Samuel Brown, of Boston; Seaman, Bayley, Townsend, Hosack and others of New York; Caldwell, Condie, Folwell, Revere and many more in Philadelphia and Baltimore, as well as other places, enriched the periodical literature of the day with graphic descriptions of the disease as they saw it during the first quarter of this century, mingled, it must be confessed, with learned discussions and often bitter controversies on the much vexed question of the transmissibility of the disease. The great

work of Drake on "Diseases of the Interior Valley of North America," and that wonderful storehouse of facts, surmises and theories, compiled by La Roche, are too familiar to require more than a mere mention here. At a time when the ideas of Benjamin Rush were almost universally accepted relative to the local origin of the disease, Strobell, of Charleston, wrote a most masterly essay on the other side, based on observations made by him of an outbreak of the disease at Saint Augustine, Florida, and this was soon followed by the able productions of Monette and Carpenter in the Southwest. To De Saussure, Hume, Wragg, Simons, Dickson, of Charleston; Waring and Arnold, of Savannah; Anderson and Nott, of Mobile; Cartright, of Natchez; Ashbell Smith and Heard, of Texas, with numerous others, we owe many articles in the medical journals of the greatest excellence, without which, indeed, it would be impossible to trace the connection between epidemics occurring in the same year in different towns. To come down to our own city it is only necessary to mention the Dowlers, Fenner, Barton, Axson, and many more, both dead and among us still, to show that, for the last half century at least, we have not been behind hand in contributions of permanent value to the history of epidemics.

Admirable papers are also to be found in the various volumes of Army Medical Statistics and Reports, written by Archer, Heustis, McMahon, Lawson, Forry, Porter, and others of later date, who have been stationed at Southern posts during various visitations of yellow fever.

To all these and many more, that time will not permit me to enumerate, we owe obligations that can only be repaid by a like industry and self-sacrifice on our own part. The men of the past were often biassed by conflicting views or personal animosities; their ideas of pathology were sometimes crude and incorrect; their theories of treatment were strictly in accordance with the spirit of the times in which they wrote; but in clear descriptions of the disease as they saw it, and in impartial narration of facts as they

occurred, they are deserving of all praise. The wonder is, not that so little has been handed down to us, but how our predecessors in the anxious and harrassing labors of busy professional life, found time to write so much. Nor, if we view it aright, has the labor of the humblest been in vain; for, as President Eliot, of Harvard, has justly remarked in a recent address: "The great achievements of "the century in the science of medicine and the healing art "are all prophetic. * * In value far beyond the actual "benefits which have thus far accrued to mankind from their "discoveries is the clear prophecy they utter of greater "blessings to come."

As I remarked in my introduction, we may perhaps indulge the pleasing hope that epidemics of great magnitude are things of the past. Rational common sense applied in the quarantine laws of 1822, has kept the great cities of New York and Philadelphia free from the pestilence for over sixty year. Rational common sense is yearly being applied more and more to questions of sanitation throughout the South. The commercial prosperity of the country is increasing day by day, but we are fast learning the great truth that the health of the community is of more value than money; that it is something that money alone cannot give, but which an enlighened public sentiment can advance and maintain.

Regarding then, as we may do without too great a stretch of the imagination, that these terrible ravages of epidemic disease are fast passing into history, and that we are now standing on the dividing line between a past of desolation, sickness and death, and a future of prosperity and health, it seems proper for me to close my remarks (already, I fear, too long) with a brief tribute to the self-denial and bravery of medical men wherever called upon to meet this formidable enemy. If it partake of the nature of a boast, it is surely a pardonable one, and one that our honored guests to-night can easily condone. The old controversies that too often embittered members of our profession against each other are dead, or if not entirely dead, are never

likely to be agitated with the same acrimony as before, and we can now look back with a natural feeling of gratulation at the record of work faithfully performed that has been left as a heritage to us, for it was work fearlessly and faithfully performed. "*Procul a Jove, procul a fulmine*," is not a maxim that has ever influenced the disciples of Hippocrates in the conduct of life.

There have been those who on the field of battle have never been able to master the dread which overcame them at the sound of the whistling shot and the bursting shell: mariners in scenes of wreck have deserted the sinking ship, leaving behind a helpless living freight to certain death: in the great plague in London parents deserted their children and children those who bore them; but with honest pride can we exult in the fact that never in one single instance in all these dread visitations of disease, never in one single instance throughout the whole yellow fever zone, whether among the colder temperaments of Puritan New England or the warmer and more impulsive spirits of our Southern brethren, have any physicians called to the post of duty on their field of battle faltered in their trust. All honor to them all! Weary, faint, sick, yea, even dying, they have presented an unwavering front to the forces of destruction, comforting and encouraging the well, nursing the sick, holding the cup of life to the fevered lips, soothing the parting hour and consoling the afflicted with tender promise of "that peace which the world can neither give nor take away." All honor to them all! "Too often worn down by anxiety and unrequited labor, they reaped but a harvest of unfulfilled hopes." It is well, it is easy to eulogise the dead, but is there no meed of praise for those who are still among us? Yea, verily, and yet but a single word will suffice.

Brethren, we have fought together on many a weary field. Some have been great commanders, while others of us have marched in the ranks, yet, well I ween, that the same spirit has actuated all, simple allegiance to duty and no more.

One word for those who in days of pestilence have bravely fallen with their face to the foe. They rest quietly now—alas! how soon forgotton—in the peaceful cemeteries of many a Southern city, but in life they fought a good fight, and more than once, like him of Trafalgar, heard the glad shout of victory as they closed their dying eyes. Heroes and martyrs, all! they as truly died for humanity, for country, for all that is noble and true in life as ever did soldier in a holy cause. They are gone—even their names too often leave but a faint impress on the mind, so quickly do mundane reputations fade away—but thinking on what they were and how they died, we may well re-echo the words of the Quaker poet:

"Not wholly lost, oh! Father, is this evil world of ours;
Upward through its blood and ashes spring afresh the Eden flowers.
From its smoking hell of battle, Love and Pity send their prayer,
And still Thy white-winged angels hover dimly in our air!"

Morbid Somnolence.

By Rudolph Matas, M. D.,

[Read before the N. O. Medical and Surgical Association.]

In travelling over the Mexican frontier in the month of September, 1882, while on my way from Matamoros to the fever-stricken town of Mier, I reached a lonely settlement known as the ranche of La Mesa (so-called, because it is situated in an elevated, flat-topped hillock), where I stopped, as is customary with all travellers following that itinerary, to relieve the cramping confinement of the travelling coach, and to refreshen with whatever hospitalities that unpromising station afforded.

After indulging in the sundry articles that constituted the diminutive *menu* of a rustic, though, nevertheless, substantial and enjoyable repast, I was accosted by several residents, who knowing that their guest was a *senor medico*, began to pour upon me the narratives of their various medical tribulations. Among the several cases that were shown me during the brief moments that I remained in that

worthy place, one in particular attracted my attention. A young ranchero, about twenty-four years of age, named José, was presented to me by his father as a sufferer with what he styled "*un mal de sueno* (a sleepy sickness). This unfamiliar, though not altogether new designation, immediately directed my attention to the young fellow, who accompanied his father, eyed me in a pretty bright and intelligent manner for a sleepy man. His father, a comparatively intelligent herdsman, told me that his son had, since the last month and a half, manifested a tendency to sleep quite out of proportion with his former habits. Previous to that time José had been very active and diligent in the performance of his duties, and in fact, like most country folks, was a very early riser. His trouble appeared to begin with a lengthening of his morning sleep, gradually increasing to a prolongation of the mid-day *siesta*, which was often stretched to a slumber of 8 or 10 hours duration, leaving him in reality but a few hours of wakefulness. Lately he had had perfectly wakeful moments, which appeared to interrupt with activity and wakefulness very long spells of sleep which lasted 24 or even 48 hours. The somnolent periods, from the imperfect history I could gather, were coming on paroxysmally and increasing in duration, a fact that appeared to alarm both the patient and his family. The disorder was not ascribed to any particular cause, excepting it might have been a prolonged ride in an open and unsheltered road during a very hot day. While conversing with the father, I noticed that the patient, who, I was told, was then enjoying one of his brightest days, became slightly flushed in the face and then lost color again. I asked him how he felt, he told me "*muy bien*" (perfecty well); his pulse was about 74, his tongue was clean and without indentations, his bowels in good order, though slightly costive at times, and his skin normally warm and humid to the touch. Shortly after our conversation began, the patient, who had already expressed a desire to be medicated for his condition (which he sensibly regarded as an affliction), became apparently less attentive to my questions, and though

evidently endeavoring to control himself appeared to struggle vainly with his lids which were repeatedly dropping over his eyeballs, as if heralding the arrival of the Sleep-God. I left the 'jacal' at this juncture to procure my thermometer which I had left in the coach; when I returned, a few moments afterwards, the father took me by the arm and pointed to his son, who sitting on the box where I had left him, had calmly propped his back against the wall and fallen asleep. The old man, with a pained look, said: "If I'd let him alone he would sleep this way for a week." I approached the sleeper: he looked paler than before, though his pulse beat at the same rate; I called to him but he did not answer, and it was not until his father had severely pinched his ears that he woke up and slowly apologizing, said: '*dispense, su merced*,' (excuse me, sir). His sleep, I was told, was always of a natural character, calm, tranquil, apparently rarely if ever troubled by dreams, and not associated with deep stertor or even snoring. Whenever a sleepy spell overtook him it mattered not what he was doing, whether eating, conversing, or even while riding on horseback, or when herding sheep or cattle, he would certainly lapse into a doze. As I have already said, the boy appeared strong, healthy and intelligent enough. He complained of no headache or fever, though he had malarial intermittent some time before, a malady not infrequent in that swampy district. His eyelids were not significantly puffy. The pupils were normal in their reaction to light, and without disparity. There was no ptosis, strabismus or nystagmus; no paralysis anywhere, and no fault could be found with his cutaneous sensibility. The urine I could not examine for want of time and convenience, though I can hardly believe that there was any renal trouble, as he passed urine in the customary quantity, and had none of the tortuous or thickened arteries that usually indicate the most common and dangerous forms of the Brightic kidney.

What then was the cause of this sleepiness? What

pathological state did underlie so inexplicable a condition? These and other kindred questions assailed my mind while I examined the unfortunate victim of this peculiar disorder. While I questioned, the reminiscences of past clinical experience brought back with them no case analogous to this: one only, I remembered, and that was also an interesting instance of somnolence, but not idiopathic or essential in character, as it was connected with a large and well marked cerebral tumor.

It is valuable enough, however, to intercalate here:

In the winter of 1881, a young woman, aged about 22 years, was admitted into ward 35, Charity Hospital, during Prof. Lewis' term of service. The symptoms that specially led her to seek admission were a constant drowsiness accompanied by a continued frontal cephalalgia. In this patient the somnolence, amounting almost to stupor at times, was so great towards the last that it was one day accidently mistaken for opium poisoning, on account of a very minute quantity of morphia and chloral that had been given unadvisedly to relieve the headache. I recollect that atropia, caffeine, emetics, cold douches and flagellations were applied for hours with the effect only of partially rousing the patient. Not long after this incident full coma set in and the patient died: and, as the professor suspected, the autopsy revealed a large tumor—a glioma—that was cut in half upon exposing the centrum ovale majus of the left hemisphere. In this case there was ptosis of the right eye, mydriasis of the same side, and the unceasing headache which were sufficiently indicative of the actual condition.

Therefore, to return to our rural case, we had, in the absence of any such symptoms, no guides, no clue which could be grasped in a brief but attentive survey: nothing to lead to a definite conclusion, excepting to that truistic one that I was in the presence of a case of essential or idiopathic morbid hypnosis. (!)

In the meantime, the therapeutic question stared me in the face: "What would the doctor prescribe?" was the pa-

rents' anxious inquiry. I ignored the *causa morbi*, but the slight anæmia and the history of intermittencies, coupled with a past malarial history, suggested the only available treatment—*i. e.*, black coffee in large quantities, cold baths in a neighboring pond, and especially a pill of quinia, arsenic, strychnine and iron, the only drugs for such a case that could probably be obtained in the neighboring and scantily supplied town of Reynosa. A small quantity of amyl nitrite, that I had in my case for emergencies, was divided and some left for inhalation, to be used after the preliminary flushes of the face had inaugurated the attack.

The results of this treatment and the final termination of the case, I have never learned. The data above presented are merely extracts from my memorandum book, in which I retained this incident among various others, more as a *souvenir de voyage* than a medical observation; it served as a theme for cogitation for some hours after, but the difficulties of Mexican travel and the dangers, responsibilities and other engrossing occupations attending medical relief during a yellow fever epidemic, soon drowned this petty observation and maybe would have extinguished it altogether in my recollection had not the repetition of the same phenomenon, though on a lesser scale, in a case that I attended upon my return to the city, recalled it to memory, and incited me to further research in this direction.

This person, a gentleman about 31 years of age, thin, unhealthy, scrofulous, but energetic and of marked mental powers, had contracted syphilis many years previous to his last trouble. He considered himself cured of his specific symptoms, but I believe he was not yet altogether free from its later manifestation. When he consulted me for his trouble, he complained of an intense cervico-dorsal neuralgia, characterized by lightning-like pain, which intermittently, but frequently, darted from the occiput down to his arms and back. Accompanying these neuralgic paroxisms I noticed that as the pains began to lose their intensity, he also appeared to lose his energies, was apathetic,

torpid and finally sleepy. Frequently he fell asleep in my presence, even during conversation, and at times, in various offices where he had to transact business, dropping into a chair and dozing away, indifferent altogether as to the convenience or urbanity of the proceeding.

While these spells lasted he was unusually morose, taciturn, unsociable, and seemed only to hanker after the bed, which, as a rule, in health he comparatively cared little for. The only apparent connection that I was able to trace between his sleepiness and neuralgia was in an anæmic pallor that spread over his countenance during the somnolent period. He was placed under tonics, strychnia, iron, arsenic, phosphide of zinc, together with hypodermic injections of morphia and atropia, under which he sufficiently recovered to undergo the fatigue and inconveniences of an extended tour through the west.

The three cases that I have just sketched are clinically different one from the other. In one, the first, a history, imperfect it is true, is presented, in which the condition, sleep, is progressively growing in the individual; it is assuming the vital rôle in the play of his life and appears to be preparing for a rapid and dominating absorption of the individual's rational existence,—this case is unexplained by any co-existing complications, its origin is unknown, and to my mind appears to be a new species in the genera morborum.

The cause of excessive sleep in one of the remaining cases will be easily recognized in the encephalic tumor, which, by gradually compressing the cerebral mass, gave rise to anæmia. The third case is also new to me, though it is different from the first in the co-existence of another and well characterized nervous derangement. The occurrence of cases similar to the above are not altogether rare in practice, as we have heard of some analogous experiences from others, and the existence of a sporadic disorder especially characterized by an exaggerated tendency to sleep, independent of all similar though recognized symptomatic disturbances, appears to me plausible. Cer-

tainly the consideration of a few cases which I have culled from various sources, and which bear some very close analogies to the preceding, would tend to strengthen this view.

The following case reported by Dr. E. Paz in the *Cronica Medico Quirurgica* of Havana for 1876 (p. 328) was studied in Spain, and has some features analogous to my somnolent patient already described as afflicted with cervico-dorsal neuralgia.

A man, J. M., a native of the province of Toledo, Spain, aet. 39, of good constitution, plethoric habit and good family antecedents, remembers having had no illness until the present trouble attacked him. He says that about the month of July, 1864, while mowing in a hay-field, was caught in a shower and drenched to the skin. Without changing his clothes, he laid down to sleep on a wet pallet. When he woke up he had a chill, accompanied by great pains, which prevented all movements of the body, for the time being. He was removed to a neighboring town, where, under appropriate treatment, he was gradually relieved of most pains excepting that at base of skull, about the nucha and cervical region, which persisted for twelve years. In this particular region the pains remained almost as acute as in the beginning.

As the general pains, or neuralgiæ, disappeared, he observed that, especially after eating, an irresistible tendency to sleep set in, accompanied by heaviness of the head and general dullness of disposition. During the second year of his illness the attacks of somnolence occurred frequently—twenty or more times a day—always preceded, however, by an aggravation of pain at the base of the cranium and cervical region. A peculiarity about these neuralgic pains was that they lasted for a very short time, and left him with the sleepiness only, which deprived him of a great deal of valuable time. Towards convalescence these neuralgic and sleepy attacks diminished in frequency, being limited to five or six spells a day.

This case continued to improve, though its final termination is not known.

In the *Medical Times and Gazette* (London) of August, 1863, Dr. J. Ward Cousins, Surgeon to the Portsmouth Royal Hospital, publishes a note on a singular case of profound and long sleep. A gentleman, act. 43, has been subjected for the last twenty years, prior to this observation, to attacks of prolonged somnolence. He had never been sick, neither did he experience any symptoms which denoted a cerebral affection. His disease began in 1842, and lasted that year. After a long interval (two years), during which he enjoyed good health, it reappeared. This spell lasted eighteen months, when it disappeared again, to return twelve years after. Since 1860 he has been troubled with exaggerated sleep. He now goes to bed at 10 P. M., and immediately falls into a slumber from which it is impossible to rouse him by ordinary means of stimulation. He generally lies down on his side, and presents the appearance of a person plunged in a tranquil and invigorating sleep. The face, and ears, especially, are pale: the skin in other parts of the body preserves its normal warmth, excepting the extremities (feet and ears particularly), which are frequently cold and livid. The pulse is slow and weak, the pupils generally dilated, the respirations shallow. His sleep is unaccompanied by sighs or ronchi. He usually wakes up suddenly, but this is often not until four or five days have been passed in this hypnotic condition. Lately, he has slept three days in succession, frequently four—on an average two days. He generally passes four or five hours out of the forty-eight in wakefulness. His sleep is not troubled by dreams. The sphincters maintain their tonicity. Before sleeping he complains sometimes of mental torpidity, but he has never presented any sign of deranged intellection or irregular cerebral functionation. He has a good memory, and when he wakes up remembers perfectly all that has been said and done before his sleep began, and always inquires into its duration. For some time past this patient

has been losing flesh. He is now pale, though his appetite is good, his digestion normal, and evacuations regular. He is of a benevolent disposition, enjoys good reading, and is endowed with a quickly perceptive and highly organized mind. In the beginning of his sickness (1848) he suffered from spasmodic trismus, which usually began shortly after sleeping and was prolonged several hours. At the same time he suffered from pains in the back and neck. Since that time, however, he has not been afflicted with these pains.

Dr. Cousins attributes the trouble in this case to cerebral anæmia, though the ultimate result of the disease is not stated.

Another curious case of this kind is published by Dr. Marduel in the *Lyon Medical*, for October, 1872,* which may be summarized as follows: A soldier, æt. 25, on July, 1870, received a slap in a dispute; shortly after he was in a general tremor; one hour later he fell into a doze which was intensified into a deep sleep lasting without interruption 71 hours. In November, 1870, he slept steadily for three consecutive days. In March, 1871, he falls into another sleeping fit and slumbers five days: in May, two spells lasting three days consecutively; in July, two days: and in March, 1872, several attacks that last 48 hours. On March 21, one of these well-marked paroxysms is observed: sleep is profound, sometimes changes place and decubitus in bed; skin insensible. If he is disturbed purposely a tetanic rigidity seizes the extemities: a strong electric current awakens patient causing procursory clonic spasms. This last spell has lasted 72 hours and is followed by epistaxis; temperature always normal; has lost 1 kilogram of weight since last paroxysm. In the wakeful state he eliminates through the kidneys no more than 17 grams of urea, when normal quantity should amount to 30 or 40 grams in 24 hours.

Other isolated and remarkable cases of morbid sleep,

* Quoted by Antonio Mestre in a valuable paper on "el mal del Sueno," *Cronica Medico Quirurgica*, p. 355, vol. ii."

or a condition simulating it in every particular, though not frequent in medical literature, have been recorded. Fournier* cites several cases of this kind.

"A young woman in perfect health suddenly experienced such an irresistible desire to sleep that she sought refuge in a solitary and unfrequented place where to realize her inexplicable desire unmolested: her sleep lasted eight consecutive days, when she was awakened by the great stir and noise produced by a number of persons who surrounded her. She was very much weakened by this prolonged fast, and death would have been certain if the sleep had not been interrupted." A young girl, 8 years of age, a victim of parental cruelty, sought safety one day in some neighboring hedges, where, after wandering considerably, she fell asleep on a heap of moss; she was not discovered until seven days had passed, when she was found in a state bordering on asphyxia.

Fournier also reports the history a pious young lady living in the environs of Avignon, who was seized with a profound sleep, which she previously announced would last forty days. She was considered dead; but after exposing the body to public inspection, and after observing that no signs of putrefaction showed themselves, the inhumation of the supposed cadaver was deferred until evidences of decomposition would set in; at the expiration of forty days, as previously stated by the woman, she awoke; the same phenomenon was repeated several times in subsequent years. This case, which is properly one of either fraud or catalepsy, belongs to the order of the Louise Lateau, the Welsh fasting girl, and other instances of hysteroidal perversion of general nutrition, and can not be ranked as properly one of idiopathic somnolence; it is well, however, to remember that some authenticated cases, in which a lethargic sleep has existed for forty or fifty days, have been reported, among which we can prominently refer to Dr. Blandlet's case (*Gazette Hebdomadaire*, 1864,) in which a patient was repeatedly afflicted with a somnolence that lasted over

* "*Cas Rares*" (*Dict. des Scien. Med.*, Paris, 1813).

one month and a half—nearly sixty days, at intervals of a few years.

These last cases, properly speaking, belong to the category of cases so thoroughly studied by MM. Charcot, Bourneville, and by M. Richer, in the *Salpetriere*, and really pertain to the domain of hystero-epilepsy.

A remarkable form of prolonged sleep, which is often the precursor of death, is not rarely met with in the aged; this sleep it is difficult to interrupt by awakening the patient: consciousness is lost gradually, the will power is altogether impaired towards the last, and the patient dies without recognizing his surroundings. It was known anciently as the *febris soporum senum*.

A form of disease not unlike the single cases that have just been related but which is in reality more a curiosity of medical geography than a disease of any practical importance to the physician, in this country at least, is the remarkable sleeping sickness ot Western Africa. As this disorder is not altogether foreign to the present subject, and presents some curious and certainly not generally known features, I will devote a few moments to its consideration.

Our knowledge of this disease practically dates back no farther than the last 25 years. Dr. William M. Winterbottom, who filled the important position of physician to the colony of Sierra Leone, where he lived four years, published an interesting work in 1803, entitled "An Account of the Native Africans in the Neighborhood of Sierra Leone," in which the disease was first mentioned. In 1828 and 1829, he also contributed a series of articles to the *Edinburgh Medical and Surgical Journal*, in which he devoted special attention to this sickness. More recent writers, however have contributed extensively to the literature of the subject, and described more accurately the clinical history of the disease, prominent among whom could be mentioned, McCarthy, Clark and Gore, among English writers; and Danfaix, Gaigneron, and Guerin, among French authors.

Chas. Dangaix, a French naval surgeon, wrote, in 1861, probably the most extensive and detailed observations on this sickness. His article which appeared in the *Moniteur des Hopitaux* (No. 100), soon attracted attention and gave rise to considerable discussion. This disease, according to this writer, is limited in its endemic prevalence to the western coast of Africa, in the Congo country, extending south from the Congo or present Livingstone river to about the 15th degree, south latitude, where the Nourse river separates it from the Ovamba country. Though the disease seems to prevail with special intensity in this portion of the African coast, it is not improbable that when the medical topography of all these regions, and particularly those almost unknown and unexplored, lying immediately east of the Kohng Mountains, will have been studied, it will be found that the "sleeping sickness" has a much wider range of prevalence than it is generally credited with. It is a fact, anyway, that Winterbottom and Mr. Clark studied it in the British possessions of Sierra Leone, and Pruner-Bey in Egypt, countries that are certainly in much higher latitudes than those usually assigned to it by medical writers. Along the Congo and in Benguela, the disease is known by the natives under the several names of *N'tonzi* and *Talangolo*, at other places it is designated *M'hazo-Nicto;* Europeans have simply called it the *sleeping sickness*, *sleeping dropsy*, etc. M. Dangaix, who appears to have observed the disease *in loco*, though certainly to a rather limited extent (only three cases), says that three degrees of the malady can be recognized: 1st. A tendency to sleep which comes on at unusual moments and continues during an abnormal length of time. The expression is sad and care-worn; skin sometimes normal to the touch, sometimes hot, dry and rugous; pulse small, and irregularly frequent. 2d. Sleep growing daily more continuous and imperative, especially during the day; it frequently overtakes patient in the midst of conversation, cutting short a phrase or word; intelligence blunted, vision and

audition impaired; hesitating and at times "saltatory" gait; pulse tranquil, regular. Towards evening, not infrequent heaviness of head and supra-orbital cephalalgia: occasional diarrhœa. 3rd degree. Sleepiness more marked, more profound and less interrupted. The face expresses stupidity, often bestial imbecility; eyes prominent and injected; general prostration. Though the appetite persists the weakness is so great that it is often necessary to feed the patient. Persistent and intractable diarrhœa sets in as a premonitor of the approaching end.

"The sleeping sickness is *intermittent* in character; the somnolence disappears after some days duration, and appears after a more or less irregular period of normal vigilance. This disease has a general duration from 4 to 5 months, and so far, no matter what measures have been tried in the way of therapeutic relief, nothing has succeeded in modifying its deadly progress. In the autopsies that have been made, nothing more than inconstant though frequent congestion of the sinuses with an excess of intracranial fluid have been detected, an anatomical fact, which seems to be the only cause for the designation—'sleepy dropsy,' a term which, Mr. Clark says, is a translation of the original Congo appellation.*

"The causes of the disease are entirely unknown; but it is certain that all races excepting the black enjoy an immunity from its attacks. It cannot be said that this affection is dependent upon the influence of climate for its causation, as it has been observed in mid-ocean, in the Eastern as well as in the Western Coast of Africa, in Lower Egypt, and, as we will see further on, in other parts of the tropical zone. No single cause outside of ethnical influence can be appealed to in order to explain its ætiology; and this last, is but a predisposing cause, the determining or immediate factors not having been yet recognized."—(Boudin, ibid.)

Though M. Boudin has said that the disease is limited purely to the Negro race, and almost every writer agrees

* Boudin, *Bulletin de la Societe d'Anthropologie*, Dec., 1861.

with him in this respect. Dr. Guerin, of Martinique, in a very authoritative thesis on the subject, written Aug., 1869, and published in the *Archives Generales de Medicine*, 1869 (vol. ii, p. 605*), says that: "It is wrong to suppose that this disease is always to be but a mere nosological curiosity for practical physicians, for we," he says, "have had an opportunity of observing in Paris, itself, two cases of disease which agree in every particular with the African sickness, and we are convinced that examples of the same malady would multiply greatly if only the attention of professional men would be directed to this subject."

After describing the clinical peculiarities of his cases, Dr. Guerin says: "The prognosis of the sleeping sickness is of the gravest character. None of the physicians who have ever written on this malady appear to have cured a single case, and we, who have treated over 148 of its victims can claim but *one* recovery, and that we believe was owing chiefly to the fact that the malady was attacked in its incipiency and before dangerous symptoms developed."

From the above citation we see that the sleeping sickness (or hipnosia, as it has been called by Dr. Dangaix) exists or has existed in America. However, its presence on this continent can be easily accounted for. It has been directly traced to importation from slave-ships, which, loading up with diseased Negroes on the Congo Coast, and other African centres of slave traffic, have readily transported it to the Antilles: Dr. Dangaix, in fact, believes that one per cent. of all African slave emigrants to this country succumbed *en route* from their native land to the Antillean Archipelago. Dutruleau and Gaigneron have given an account of its prevalence in Gaudaloupe. Guerin has carefully observed it in Martinique, and under the expressive designation, 'the lethal sleep' (sueno mortal), it has been described by Dr. Jose Argumosa, in Cuba. The last observer reported 16 very graphically described cases of the disease in the *Cronica Medico Quirurgica* of Havana,

* Quoted by Dr. Antonio Mestre, loc. cit.

His last case was observed in 1866, and since that time it would appear that the disease has disappeared, or at least very greatly diminished in Cuba, for he never has seen any more cases, though they certainly were very common in the days when the slave-trade was in full activity. Though Dr. Argumosa observed this disease independently and without a knowledge of its African origin, he reached to most of the conclusions arrived at by other observers who originally studied it in its hot-bed. He says, "it appears to attack only African-born negroes; it does not respect age, sex nor physical condition. None of the methods of treatment have succeeded in curing the disease; all have signally failed, the termination being always fatal, for which reason I have named it the 'deadly sleep.'"

From this observation, it would appear that the disease is not essentially contagious or infectious, as it has limited its attacks, in Cuba at least, to those negroes who had evidently contracted it in their own home just before leaving on their transatlantic journey, or while confined in the contaminated vessels.

It is surprising to us that no record of this interesting complaint should have been preserved in Louisiana and other southern States, for this malady must have surely existed and prevailed even largely, I would presume, among the native Africans brought to this country, at least in the earlier days of the slave-trade.

Finally, and before terminating the remarks on this curious sickness, I would refer to some points in its history more recently emphasized by McCarthy (quoted by T. W. Ogle, *Med. Times and Gazette*, July, 1873) and by A. Gore (*British Med. Journal*, 1875), who have studied the malady in its endemic foci, and who state that in every case there is a marked enlargement of the cervical lymphatic ganglia, which form a moniliform chain along the whole neck from the angle of the jaw to the clavicle. The treatment adopted by the native "doctors" is to extirpate every one of these enlarged glands. McCarthy says: "I have never witnessed the operation, but it is said to be of

a radically curative value. I have counted as many as 13 cicatrices in the neck of one individual..... I believe the sleepiness is produced by a compression of the nutrient vessels of the brain and the consequent anæmia of this organ. It is known that the lymphatic ganglia are very numerous at the bifurcations of the carotid, and any compression exercised about this region of the neck may be followed by the sleepy symptoms referred to. The 'doctors' remove these bodies without knowing the principle of their operation; indeed, they have not the faintest notion of anatomy. Yet no accident has ever been known to follow their empirical intervention."

In summarizing what has been said in the preceding pages, and in condensing our own unexpressed views on the subject, we will conclude as follows:

1st. That a disorder, apparently functional in character, idiopathic (because its cause is unknown) and characterized by abnormally protracted and frequently repeated sleep-spells, exists; and until its ætiology and pathology have been better ascertained, deserves a separate and independent place in the nosology.

2d. That in view of the periodicity of its attacks and the pallor of the face, with which it is accompanied in many cases, its association with other functional nervous disturbances, such as neuralgia, etc., would presuppose it to be a disorder of the sympathetic, affecting with special intensity, the intra-cranial vaso-motor nerves, and inducing through their spasm or contraction an anæmia of the brain, at the present moment the most plausible theory of sleep-production.

3d. That malarial influences *may* affect the sympathetic in this way, though paludal agencies can often be excluded from the causation of such cases.

4th. That all other symptomatic somnolences, such as those associated with organic brain disease; uræmia, and various other forms of blood-poisoning, together with the specific sleeping disease of Western Africa, and the other states, known as catelepsy, lethargy, etc., pertaining to the class of hystero-neuroses, should be excluded from the functional hypnosis in question.

Yellow Fever in Vera Cruz and Colon in 1882, and the Louisiana State Board of Health Thereon in 1882 and in 1883.

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On April 17th, 1882, the usual annual Quarantine Proclamation was issued by the Governor of Louisiana, and, in compliance with the recommendation on June 8th of the State Board of Health, this proclamation was amended on June 12th. Among other amendments, it was "provided that the port of Vera Cruz, which is known to be at present perfectly healthy, shall be exempt from the effect of this proclamation until the further date of July 1st, 1882."

Notwithstanding the superlative strength of the words, "known" and "perfectly," sanitary authorities, other than the State Board, denied that this Board could have the *knowledge* which it proclaimed and therefore strongly condemned the above proviso as very dangerous. In evidence of this, one report, written immediately after the publication of the above proclamation, maintained the following views: "The history of yellow fever at Vera Cruz justifies the belief that this port is not "*perfectly*" free from the disease and that a thorough medical inspection of its hospitals, etc., would prove that it was not entirely free on June 8th or on June 12th, the dates when the State Board and the Governor's Proclamation published to the world, that "Vera Cruz is *known* to be at present *perfectly* healthy." However, it is well known that, as it respects Vera Cruz and all ports habitually infected with yellow fever, it has always been easy to procure certificates from captains of vessels, merchants, doctors and even from local sanitary officers and United States Consuls to the effect that their port was free from yellow fever, when, in truth, it was only *comparatively* free. Dr. Trowbridge, United States Consul at Vera

Cruz, does not believe that yellow fever can be imported and officers, who thus believe, cannot be expected to be as cautious, skeptical and thorough in inspection as if they did believe in the danger of infection."

Soon after this, another report on the same subject maintained that—"The records of yellow fever prove and experience in Cuba is convincing, that very great difficulty is encountered, even by a disinterested medical inspector, and even when on duty at the very port habitually infected, in determining—at times when yellow fever is not prevalent—that *no cases* exist. Ordinary evidence (from newspapers, merchants, captains, consuls, etc.) does not, in such a case, enable one to "*know*" that an habitually infected port is free from *all* cases of yellow fever, and, still less does such evidence enable one to "*know*" that such a port is free from the danger of exporting infection. In truth, there is much evidence tending to prove that, in habitually infected places such as is Vera Cruz, the poison is ever present; and that, though it may remain temporarily dormant and inappreciable, yet this dormant poison may be exported and, should it elsewhere find the conditions requisite for its revivification and growth, it may give rise to a pestilence even at a distant place."

These quotations will suffice to show the opposing views entertained in 1882 by the State Board on the one hand and by other sanitary authorities on the other hand, and also to show the reasons why the latter distrusted the former in this matter. At last in 1883 conclusive evidence has been presented to prove whether this distrust was well founded or not. In the meanwhile, it should be remembered that the State Board, whose political convictions as to "State sovereignty" rendered the United States National Board of Health very offensive to it, has none the less entered into very close alliance with the United States Marine Hospital Service, and therefore that the evidence of the latter is the evidence of a friend.

The Annual Report for 1883 of this friend contains, on pp. 387–391, a valuable report from Assistant Surgeon John

Guitéras. On duty at Vara Cruz in July, 1883, Dr. Guitéras reported that in 1882 fifty-eight cases of yellow fever were admitted to the Hospital de San Sebastian, which admits *males only*. Of course, many more cases must have occurred in the female population and in those numerous males who never become inmates of a hospital. Dr. Guitéras' report further shows that there were admitted into this hospital actually more yellow fever patients in 1882 than in three other of the eight years, 1875–1883; and he emphasizes the lesson often taught before, yet unheeded by the State Board in 1882, that "in Vera Cruz, as in Havana, yellow fever is an endemic disease; it prevails *every* year, and probably there are cases of the disease in *every month* of the year." Since this evidence renders only probable, but does not prove, that yellow fever was present at the time (June, 1882), when Vera Cruz was "known to be" "perfectly healthy," as alleged by the State Board, it is necessary to present additional evidence.

This has been recently and conclusively presented by Dr. Mainegra, of New Orleaus, who was employed for special service at Vera Cruz by the United States Marine Hospital Service, on the recommendation, as I am assured, of the State Board. The proceedings of this Board, as published in the *Picayune* of Sept. 21st, embrace a letter from Dr. Mainegra, dated Vera Cruz, Aug. 31st, 1883, to the President of the State Board. In this letter is to be found the very same lesson taught by Dr. Guitéras and repeatedly by other authorities before as well as since the birth of these gentlemen. It is as follows: "No doubt you are informed of the fact that yellow fever prevails here the year round, and nothing is said about it at all. Last year [1882] seventy-two deaths occurred in this city and port, twelve of these in the month of December, the disease being considered very mild that year." When one recalls the *something*, which, in June, 1882, the State Board "said about" yellow fever in Vera Cruz, Dr. Mainegra's opening phrase, "*no doubt you are informed*

of the fact," presents an unintentional example of sarcasm as amusing as any book of rhetoric contains.

Having returned from his mission, additional evidence of importance was presented to the State Board by Dr. Mainegra. This, as published by the *Times-Democrat* of December 6th and the *Picayune* of December 6th and 7th, reports the following pertinent facts: "The Vera Cruz authorities have heretofore been of the opinion that yellow fever is not contagious, and hence report that there is no yellow fever prevailing." Further, a valuable tabular statement of the yellow fever statistics of Vera Cruz for the years, 1881–2–3, shows, as to 1882, that there were 72 deaths by yellow fever and 133 additional deaths by diseases of which the names are frequently misused to conceal yellow fever: that there were deaths by yellow fever in every month of said year: and that there were more of such deaths in June, the very month when the State Board proclaimed to to the world its *knowledge* that Vera Cruz was "*perfectly* healthy," than in any other month of the year, with only two insignificant exceptions. In June, 1882, there were *11 deaths* from avowed yellow fever, and *14 deaths* from diseases by which yellow fever is frequently misnamed, thus implying the presence in said month of not less than from 50 to 150 *cases* of yellow fever.

On the presentation of these facts by a disinterested medical inspector to the State Board the member—who had, in June 1882, moved the dangerous proviso, exempting Vera Cruz from quarantine because "known to be" perfectly healthy—was induced to declare to his erring Board, that "these revelations were startling and important in view of the clean bills of health and favorable statements with which the Board of Health had been *imposed on*."

It has already been shown that, to sanitary authorities other than the State Board, these revelations must have been anything rather than "startling," and that these authorities had not for an instant permitted themselves to be "imposed on." And this fact is but one among many

showing why other health authorities have not given to the State Board that confidence which this Board has so indignantly claimed was unquestionably due to it. Surely he, who declared that an opponent was being imposed on and was thereby imposing on others, is amply justified in his lack of confidence, when his opponent is finally forced by proofs to avow that he was "imposed on."

It is earnestly to be hoped, that no sanitary authority will again permit itself to be thus deceived, by evidence which is easily to be procured—as all who are familiar with the history of yellow fever have long known—from any habitually infected place, and which is so generally false that the health of no community should ever be jeopardized by such evidence.

Colon, Isthmus of Panama.

In so many other instances, besides the one now stated, has the State Board been just as manifestly "imposed on," that it ought not to be surprised that other sanitarians failed in 1882 to coincide with its President when he stated, that "he was convinced that there was no yellow fever there [viz., at Colon,] at the time the Ile Marthe was in that port," p. 328, An. Rpt., 1882. This conviction was based on two consular letters, to which were subsequently added a newspaper extract and letters from one or two citizens. Assuredly there must have been evidence just as strong, and probably much stronger, to induce the State Board to proclaim to the world that Vera Cruz "was known to be at present perfectly healthy:" and, if "imposed on" by such evidence in the one case, then why not in the other?

However, whether the State Board was or was not "imposed on" as to Colon, was really immaterial to the issue raised against said Board. To comprehend this issue requires the following brief statement of the pertinent facts: Published information, dated Panama, May 11th, and again June 29th, warned New Orleans that Colon was

infected by yellow fever.* On June 18th, the Isle Marthe, from this port arrived in New Orleans, and by the 22d its ballast had not only been discharged in a thickly settled part of New Orleans, but was also, until about August 16th, used to repair adjacent streets. In the mean time, the only four undisputed cases of yellow fever in New Orleans, in 1882, occurred and all of them within a stone's throw of this ballast. With good reason, these cases had been attributed to another source of infection; but when, about the middle of August, the attention of sanitary officers was for the first time called to the ballast, I, among others, held that this ballast *might* have been the source of infection; that its discharge at a city wharf should never have been permitted; and that it ought to be disposed of at once. The State Board deemed itself aggrieved and defended itself by declaring that Colon was not infected, and therefore, that the ballast could not be.

Now, I assert again that, while it has never been proved that Colon was not infected, it is immaterial to the issue made whether it was or was not. For, the published information about Colon, its geographical position, its increased number of unacclimated immigrants, etc., were sufficient, in the absence at that time of any good evidence to the contrary, to cause Colon to be treated as a suspected port; in addition and of much more consequence, the Board of Health itself was treating Colon as a suspected port, inasmuch as it was subjecting vessels from there, even the Isle Marthe itself, to detention at quarantine. Hence, issue really made was as follows:

Any Board of Health, which decides that a port is sufficiently suspicious to quarantine the vessels therefrom, ought, beyond question, to decide that the ballast from such vessels is sufficiently suspicious to require a rigid prohibition of its discharge where any person may be exposed to risk of infection by it,—and its discharge should be

* The Annual Report of the Louisiana State Board of Health for 1882 attributes this information (p. 234) to Dr. Nelson, whose veracity is denied on the authority of U. S. Consul Jas. Thorington. It is worth noting, that Dr. Wolfred Nelson of Panama reports in the *Canada Med. Record* 31 cases of yellow fever to November 21st 1883, of whom 22 died.

much more prohibited into such a centre of population as the ballast of the quarantined and therefore suspected Ile Marthe was discharged into. This, the only issue ever made, has never been met by the State Board, which, however, has in this instance, as in many others, diverted attention from the true issue by inventing false ones. In part illustration of this fruitful subject, attention is called to two quotations from the Annual Report of 1882.

It is stated, p. 241, that: "Even if the ballast which was *accused* by the representations of the National Board of Health [Drs. Bemiss and Chaillé] and the Medical Director of the New Orleans Auxiliary Sanitary Association [Dr. W. H. Watkins], of engendering yellow fever in New Orleans in 1882," etc. Now, all three of these gentlemen published reports on the subject, yet no word was ever written nor, as I am assured, was ever spoken by any one of them, very certainly not by myself, to justify this language. No one of us ever "*accused*" this ballast of engendering yellow fever: no one of us ever used language stronger than that *possibly or probably* this ballast *may or might* have engendered yellow fever. Such hypothetical words fail to amount to *an accusation*. What the Board *was* "accused" of was of negligence in permitting the ballast from a vessel, which it had quarantined, to be discharged into the streets of New Orleans. Let it meet this accusation which was and is still made, and not an accusation invented by itself to divert attention.

The second quotation, p. 231, is as follows:

"As the Supervising Inspector of the National Board of Health [Dr. Chaillé] held the position of one of the Vice Presidents of the New Orleans Auxiliary Sanitary Association, and was present when this *wonderful discovery* of the *dangerous properties* of the ballast *was disclosed*, it was *his duty*, as an employé of the National Board, to have communicated this fact to the State Board of Health:" and, in proof that it was his duty to report, his official instructions are correctly quoted as follows: "In case it becomes proper to notify the health authorities of

Louisiana of any danger to its public health, present or prospective, you [Dr. Chaillé] will do so, in accordance with your previous instructions."

As already stated, neither I nor anyone else ever had or pretended to have possession of any such "fact" as "this wonderful discovery of the dangerous properties of the ballast" disclosed. And, language could not worse pervert the advocacy of the opinion, shared in by sanitarians generally, that suspected vessels contain suspected ballast, and that human life should not be exposed to any risks from such ballast. "Wonderful discovery," indeed! Language so misapplied, so perversive of truth, is enough to sicken the stomach of even a newspaper reporter! Nevertheless, let me get at the issue again invented to distract attention, namely, my failure of duty in neglecting to report the ballast to the State Board. It is true I did not report it to the State Board, yet it is also true that the President of this Board had no reason, comprehensible to me, for charging me with neglect of duty, except to divert attention once more from the neglect of duty of his own Board, as involved in the disposal of said ballast. For, while it may seem incredible, it is none the less the simple truth, that those who first reported this ballast to me did so *after* having given the same information to one or more representatives of the State Board and, when my informants first reported the facts to me, they assured me positively that they had already or would at once make the same report to the State Board. What is to be thought of a charge of neglect of duty in failing to report information which the Board was in possession of before myself? My official instructions were to report certain facts "*in case it becomes proper*," and most assuredly I did not deem it proper to report superfluous information. Therefore although not my duty, in this case, to report, it was my duty to use my influence in having the suspected ballast promptly disposed of, and I deemed this duty discharged when assured by those whom I trusted, and at the very time when the ballast was first reported to me, that it

would be at once removed either by the State Board or by the Sanitary Association,—the latter to act separately if it failed to secure conjoint action.

In order that the reader may better comprehend the merits of the question, whether neglect of duty was justly chargeable to me or to the State Board, I append the following evidence from the President (in 1882) of the Sanitary Council of the Mississippi Valley and from the Medical Director of the Sanitary Association:

New Orleans, December 8th, 1883.

DR. S. E. CHAILLÉ:

Dear Sir—Yours of the 8th inst. is at hand. On the same day I communicated to you my suspicion that the Ile Marthe's ballast was the source of yellow fever infection, I addressed a postal card on the same subject to Mr. Ed. Booth, a member of the Conference Committee of the State Board, and furthermore I called upon him. I explained to him my reasons for requesting that said undisinfected ballast should be attended to, and cited the precedent of the ballast of the Valparaiso with its sad results in 1873. Mr. Booth promised me to call the attention of the President of the State Board to the same, and I have no doubt that he did so.

Yours most truly,

GUSTAVUS DEVRON, M. D.

New Orleans, December 8th, 1883.

DR. S. E. CHAILLÉ:

Dear Doctor—In reply to your note of the 8th, I can state that one member of the Board of Health had information in regard to the presence of the ballast from the Ile Marthe and of its suspicious character, before either you, Dr. Bemiss or myself had any knowledge of it. The suspicious nature of this ballast was brought to light by Dr. Devron, who called to see Mr. Booth about it while the doctor was on his way to the rooms of the Sanitary Association. Soon after this, on the same day, the suspicious facts were reported to me and I at once commenced

an investigation. This same day I visited you for consultation and found that Dr. Devron had called to see you. In returning from your office, I fell in with Dr. R. A. Bayley, sanitary inspector of the Board of Health, and gave him an account of the investigation. He was so much interested that he requested me to stop with him at Mr. Mark's office and to report to him the facts obtained. I went at once with Dr. Bayley to Mr. Mark's office and explained all I knew, concealing nothing from the representatives of the Board of Health. Considering that two of its most influential members, Mr. Booth and Mr. Marks and one of its sanitary inspectors, Dr. Bayley, had all data I could give, I did not trouble myself further.

I am truly yours,

W. H. Watkins, M. D.

Finally, I had additional evidence that the State Board was as promptly and fully informed as myself respecting the ballast of the Ile Marthe.

Translations.

Mylabris fulgurita—Its Use in Hydrophobia.

(A paper sent by Dr. Rossi of Khartoun (Egypt, Africa) to the Academy of Medicine of Turin, and published in the *Turin Journal of Medicine*, February, 1882.)

Translated by Dr. Dell'Orto.

I.

* * * * * * *

It is not my intention to enumerate, in this paper, all the remedies that have been vaunted for the treatment of hydrophobia; it would be a loss of time.

As the disease is at the present day as dreadful and incurable as it was at the time of Dioscorides, it is the duty of the men of our art to be always experimenting with any new remedy that may be suggested to them, even by blind empiricism.

It was in 1863, when I was called on a professional visit to Prince Halim, at his residence, the *Villa di Soimbra*. There I happened to hear of a mad dog that had bitten five individuals, three of whom died of convulsions and two recovered through the internal administration of *a specific belonging to a tribe of Bedouins wandering in the vicinity of Zagazig*.

What kind of remedy might this specific be? I asked myself. Was it really efficacious in rabies? I requested the prince's assistance, in order to obtain from that tribe this supposed specific: but unfortunately the prince was so much preoccupied with other business, that he did not remember my request.

In the summer of 1875, many cases of hydrophobia appeared in Alexandria and Cairo (Egypt), where, in a local journal, I called the attention of the authorities to the specific of the Bedouins, and spoke of the necessity of acquiring that remedy by all means in their power.

This appeal of mine was strongly endorsed by the able pen of lawyer Bonola; and we finally succeeded in interesting the Government in the important investigation.

Dr. Sonsino, the Sanitary Inspector of the Province of Zagazig, was officially invited to commence his researches.

This order of the Government was faithfully executed, and before long the tribe of Bedouins and their secret were found out.

It is the *mylabris fulgurita*—a coleopterous insect known by the Bedouins under the name of *danarh*, which lives on a graminaceous plant of the genus *Aristida* (probably the *Aristida plumosa*), very common in the desert of *Sahara*. In the month of May this coleopter is also found in great abundance on common wheat.

The result of Dr. Sonsino's mission was made public by a letter written in 1876 to Prof. Targoni Tozzetti.

This was already a good step, but it was not sufficient. In 1877 I suggested that an abundant collection of this insect be made and forwarded to the different scientific societies of Europe.

Finally, last year (1880) I obtained through the kindness of Dr. Freda Bey, the General Sanitary Inspector of the Isthmus of Suez, the so long looked for *mylabris* of Egypt; and I have the pleasure to send to your honorable body a specimen for experimental investigation.

Meantime, it is worth while remembering that *Cetonia*

aurata (the Italian *mylabris*) is a popular remedy in the Province of Saratow in Russia.

We are told that during the last thirty years it never failed to cure the disease, and even Guerin-Merville highly recommends it. According to Bogdanoff, the hunters in Southern Russia are used to give every once and a while half a *cetonia* to their dogs, in order to prevent them from acquiring rabies.

In Greece *mylabris binaculator* or *variabilis* is one of the principal ingredients of the celebrated *powder of Salamina*. Certain monks have the monopoly of this powder, and claim to have in their possession the specific against hydrophobia.

The efficacy of this powder in rabies has been confirmed by Doctors Pironti, of Ancona (Italy), and Lumbroso and d'Emilio, of Naples (Italy); the latter claiming to have cured nine cases.

In France, another genus of the tribe of *Cantharidacæ*. the so-called *meloë*, was recommended in 1856 by Fermaire, in this disease.

Meloë proscarabæus and *meloë majalis* have been long since considered as specific against rabies in Germany. *Meloë vescicotoria* has a certain reputation in Sicily and Hungary. Several experiments were made in one of the hospitals of Vienna, and it was recommended by Bush, Aster and Giacomini.

At the end of last year (1880) Chevarrier, of Tunis, sent to the French Entomological Society a sample of a Coleopter, called *mylabris tenebrosa*, which is used by the *Armenians* against rabies.

Before closing this communication, let me give you the few practical details that I could gather upon this subject.

In Russia they administer the *larvæ* in powder on a slice of bread with butter, but I am told that the insect itself, when it has completed its development, produces the same effect.

The Greek powder of Salamina is composed of this insect finely pulverized, and mixed either with the bark of the root of *Cynanchum erectum*, or with the leaves of *Cynanchum excelsum* (according to the opinion of Doctors Teyrani and Gervais.)

The Arabs of Tunis put the insect in a piece of meat.

The Arabs of Zagazig put it in a date or mix it with honey—and use at the same time the local cauterization.

Sonsino relates a case of ten persons bitten by the

same dog. Only one underwent the Bedouins' treatment, and recovered; the others died. He was cauterized on the fourth day, and took the *mylabris* during eight days

Marchetti says that, such is the faith that the Bedouins of *Bir-abu-belah* have in the anti-hydrophobic action of this insect, that they always carry a good provision of it in their travels.

In Tunis there is a belief that its salutary effects are felt even eighteen or twenty days after the bite.

Dose.—The dose of the powder of salamina is from one gram, ten centigrams to 1.25, twice a day, given morning and evening in a diaphoretic mixture, and to be continued during two months.

In Tunis, the mylabris is given at the dose of one grain.

In Egypt, from two to three insects a day are administered, according to the age of the individual, and repeated for three or four days.

In Russia, the cetonia is given in all stages of the disease, and any kind of drinks (but plain water) are forbidden to the patient; even water is only administered when the thirst is excessive.

Physiological Effects.

The physiological effects of this insect, when internally administered, are: pains in the loins, diarrhœa, strangury, and emission of pseudo-membranes from the bladder.

Its external application causes blistering.

Chevarrier speaks of excuriating colics produced by its internal use.

Dr. Freda Bey writes of "a remarkable stimulating "action on the genito-urinary organs, causing sometimes "clotted blood, or white coagula, to come out of the blad- "der; these coagula represent (according to the Be- "douins) the morbid principle of rabies, which is by the "effect of the remedy eliminated from the system with "the urine."

These effects that have been observed in Tunis and Egypt do not correspond with those of the *cetonia* of Russia, which causes a deep, long, protracted salutary sleep, that should not be interrupted.

II.

What molecular changes in the organism does this *mylabris* cause, in order to destroy the rabid poison?

Let our scientists set themselves to work upon the matter.

While waiting for the result of their investigations, we have for the moment to satisfy ourselves by explaining, *a priori*, the therapeutical action of the remedy by its physiological effects.

When we compare these effects with those produced by the common cantharis, and the symptoms of hydrophobia, we are led to think of the doctrine of *similia similibus*.

For in fact, what are the physiological effects that follow the administration of the common cantharis?

Devergie says: "a choking sensation in the throat, that "renders deglutition impossible; the swallowing of a sin- "gle drop of water causes inexpressible anguish..... "Sometimes convulsions appear, the patient rolling him- "self on the bed, or throwing himself on the floor, and "then standing suddenly up and rushing furiously upon "the persons or objects which surround him.

If we add to this *tableau* the fact pointed out by Chavernac, that one of the last symptoms of the prodromic stage of hydrophobia is an irresistible satyriasis or nymphomania—and compare it with the case of that rabid man related by Haller, who accomplished the sexual act 30 times in the 24 hours, we can see how near the poisonous effects of cantharides approach hydrophobia.

[Looking over my note-book, I find that in 1867 Dr. Majino of Turin related to the Academy of Medicine of that University nine cases of hydrophobia, which he is said to have cured with the following pommade, with which he rubbed the patients three times a day during forty days.

Tinct. cantharid.
Pulv. cantharid, } of each six grams.
Grease 30 grams,

A few years later, in England, Dr. Harland recommended as a successful treatment seton applied to the nape of the neck, and dressed with an ointment of cantharides, followed by the internal administration of esculus indicus. In presence of these facts observed by so many professional gentlemen, and in so many different countries, one is compelled to acknowledge, that not only the *mylabris fulgurita* of Egypt, but indeed all the tribe of *cantharidæ* must have some antihydrophobic virtue — and we very gladly undertook the translation of this paper with the hope of awakening in scientific circles a spirit of inquiry upon a subject of such vital importance.—Trans.]

(Translations from the *Deutsche Medizinal Zeitung*, by A. McShane, M. D.)

Bacillus Tuberculosis in Lupus.

In order to decide whether lupus be of tuberculous nature or not, Dr. J. Doutrelepont, of Bonn, has for long time examined for bacilli every case of this disease that came under his observation. At the beginning of his investigations he crushed between cover-glasses the little lupus nodes, separated by means of a sharp spoon; he then dried the tissues and stained them according to Ehrlich's method. Although bacilli were seen here and there, still the result of the investigations was unsatisfactory. Since then Doutrelepont has cut out portions of the diseased tissue, hardened them in absolute alcohol and made sections with the microtome, which afterwards colored according to Koch's method. In seven cases of lupus, studied in this manner, D. succeeded in demonstrating bacilli in each case. The bacilli were scattered or imbedded between the cells in groups of ten or twelve. In the giant cells D. could find no bacilli; which is contrary to the statement of Demme, who had seen them in these cells. In view of these results, in connection with the similarity of histological structure of the nodes of lupus with tubercles, described by Friedlander and others, D. considers lupus a tuberculous disease.

Primary Stricture of the Œsophagus, and its Treatment. By. Dr. Debove.—Among the very rare stenosés of the œsophagus, that appear as a result of the cicatrization of an ulcer in the lower part of the œsophagus, similar to an ulcus ventriculi simplex, Debove describes one that showed itself in an old drunkard. The patient had for twelve years complained of severe pains upon eating and drinking, at the upper part of the sternum, and after one attack vomited one and one-half litres of blood. These attacks recurred several times; he became very anæmic and finally came to Bicêtre complaining of inability to swallow. In two places over the cardia an extreme stenosis was diagnosed; and only through the introduction of sounds was the patient completely restored to health.

Treatment of Chronic Articular Rheumatism with Electricity. Prof. Selligmüller.—Up to recent times, cutaneous faradic pencilling, faradization of the joints, the conduction of galvanic and faradic currents obliquely through the joint, have been employed unsuccessfully:

but Selligmüller recommends the application of a galvanic current through the joint in such a manner that the anode remains in the vicinity of the joint, while the cathode (metallic pencil) is placed at different points on the joint-line for 1 5-10 seconds at each point, so that small cauterizations appear at these points. The proceeding is painful, but the patient soon becomes accustomed to it. He has obtained surprising results from this method, and strongly recommends further trials.

Corrosive Sublimate as a Disinfectant in Puerpera. A. Toporski.—Twelve grammes of the sublimate are dissolved in a small flask, with hot water or alcohol, and enough water then added to make twelve litres, thus making a 1 per cent. solution. The patients were washed with this solution. Before and after every examination the genitals of the woman, both during and after labor, must be washed. (In the latter case ½ per cent. solution will suffice.) Upon comparison of the condition of puerpera during the period of carbolic acid treatment and that of corrosive sublimate, it appears that:

1. The average time of nursing was shorter in the latter.

2. The morbidity, including the slightest illnesses, was less than formerly, and the number of manual interferences was likewise less.

3. The duration of the illness has become notably shorter.

Toporski advises the substitution of a 1 per cent. solution of corrosive sublimate for a 5 per cent. solution of carbolic acid.

Treatment of Placenta Prævia. J. H. Jungbluth.—Jungbluth is opposed to the method usually recommended, viz., rupturing the membranes. He preserves them intact as long as possible, and employs antiseptic sponges especially prepared for this purpose, which he pushes into the lower uterine segment, in order to stop the bleeding. He has seen only benefit to the mother and child arise from this treatment, and claims the following advantages for his method:

1. Uniformly safe and simple applicability in all cases of *placenta prævia centralis* and *lateralis*.

2. Speedy and permanent checking of the hæmorrhage, while inciting and strengthening the internal pains up to

complete dilatation of the os; prevention of post partum hæmorrhage and promotion of involution of the uterus.

3. Preservation of the membranes up to the time of complete dilation; prevention of laceration of the cervix, and, in case of necessity, easy and safe turning and extraction of the child.

4. Preservation and increase of the forces of the mother from the instant that treatment is begun, diminution of the danger of collapse threatened from anæmia of the brain, which, in other modes of treatment, frequently takes place at the moment of full delivery.

Treatment of the Third Stage of Labor.—Prof. Dohrn, basing himself on numerous cases, again stands out for an expectant treatment, and against Credé's expressive method. The results of his observations he sums up as follows:

1. In 1000 women, in whom the expulsion of the placenta had been left to nature, the result was much better than in 1000 others, in whom Crèdé's hand-grasp had been employed.

2. The 1000 women in whom the placenta had been spontaneously expelled, had notably less hæmorrhage, less defects of the membranes, and less child-bed fever. In those treated by Credé's method, especially numerous defects in the membranes were found, and, as a consequence of this, more fatal puerperal diseases.

3. The complications which arise from Credé's method, appear especially in those cases in which the placenta has been expelled within five minutes after the birth of the child. When expulsion by hand has been delayed somewhat, the dangers are not so great, but, however, they always remain notably greater than in those cases treated by the purely expectant method.

THE WORK OF THE FRENCH CHOLERA COMMISSION AS REPORTED BY M. STRAUSS, ITS CHIEF, AT THE SOCIETE DE BIOLOGIE, PARIS.

At the meeting of this society held November 9th, M. Strauss, communicated the results of the commission's investigations at Alexandria during the prevalence of the cholera epidemic. He said: At the time we arrived at Alexandria there were forty-five deaths from cholera a day. We made twenty-four autopsies, of these seven

were male and seventeen female subjects, of whom five were pregnant. The bodies were of Italian, Maltese and Greek inhabitants; there were no natives, as their religion prohibits the opening of the dead. An important peculiarity about the post-mortems performed in Alexandria was the possibility of opening the bodies immediately after death. All anatomical and pathological complications resulting from putrefaction were thus readily avoided.

We began our investigations by inquiring directly into the changes that took place in the intestinal canal and its contents, and especially upon the nature of the rice-water stools and vomit. In regard to the dejections we soon found that the rice-like particles that float about in the passages were formed of masses of epithelial granulations; there was a most marked granular disintegration of the epithelium. The nuclei of the cells could not be stained by coloring agents. There were, to speak briefly, all the evidences of that special necrosis which has been designated as the necrosis of coagulation.

As to the presence of microbes in the intestinal canal, we can affirm that they were to be found in extreme variety and abundance; so many and various were they in fact that it would have been chimerical to have designated any special one of these micro-organisms as the cause of cholera. In several sections of the large intestine we detected a complete denudation of epithelial lining. After keeping these sections during twenty-four hours in solution of methyl violet, the whole thickness of the mucous membrane was found infiltrated with innumerable microbes, bacteria and micrococci. There were some elongated bacteria resembling the tubercle bacillus, only smaller. Another microbe, identical in all respects with that of farcy, was also present. This last, Koch is inclined to believe, represents the micro-organism of cholera.

The discovery of this organism (so important in Koch's estimation) is of more that doubtful importance, as we found that this microbe existed not only outside of the intestine, but that its presence in the alimentary tract was far from being constant. It is found in all cases of protracted cholera; *but in rapidly fatal cases in which death occurs in a few hours after the attack, it is impossible to stain any micro-organism.* Thus it is, that in view of the variety of tissues on the one hand, in which this microbe (considered specific by Koch) is found, and, on the other, the fact that it is not constant, it is evident that the opinions

arrived at by the German observer are far from being conclusive.

The examination of the mesenteric ganglia, liver, spleen and kidneys gave nothing but negative results.

Must we report the same of the blood? The blood is black and coagulates poorly. The red corpuscles lie at the bottom of the vessel in which the blood is contained, and are covered by an incoagulable serum. A microscopic examination revealed that the red corpuscles were pale: the white cells increased in number and granular in appearance. Elongated corpuscular bodies, very much resembling the organism found in rouget, or the pneumo-enteritis of the pig, are found lying among the corpuscles. In spite of all our efforts, however, we were never able to obtain a clear, well-defined coloration by the staining method. Furthermore, all attempts at the cultivation of this body failed completely.

It is well to note that the reaction of the serum of the blood, is slightly acid. When we consider that many patients with cholera die asphyxiated almost immediately after the inception of the disease, in the so-called fulminating cases, without ever manifesting any internal disturbance, it is difficult to admit that the cause of cholera resides solely in the intestines.

Numerous experiments were made on the lower animals; on dogs, chickens, cocks, guinea-pigs, cats, rats, mice, one monkey, etc. We caused these animals to eat the stools, the blood, the organs of cholera patients, all without any result whatever. We even fed some pigs on the rice-water stools and they seemed to thrive upon them.

In fine, we have returned without bringing with us the solution of the problem, but furnished with some very simple documents that may prove of some interest and usefulness. When we think that it took no less a genius than a Pasteur to discover the microbe of splenic fever (charbon), a disease much less complex than cholera, we may be allowed to hope that the labors of the French Commission in Egypt will not be criticized too severely.

The president of the society (M. Paul Bert), said, after the close of M. Strauss' remarks, that the chief of the commission never need fear that the researches of the Commission would be judged severely. M. Bouley had already rendered justice to the zeal and courage which had been displayed by the members of the commission in their foreign mission. He, as President of the

Biological Society, was happy this day in again doing justice and honor to the activity and fearless energy with which the representatives of France had conducted their perilous investigations. Even if the French mission, he said, had brought back with it, as its only trophy, the demonstration of the fundamental error of the German commission, it would have been still worthy of our hearty congratualations.—*Gazette des Hopitaux.* R. M.

A New Use for Sulphuric Acid—At the *Societé de Biologie*, M. Reynard called the attention of the society to the danger of burial as a method of disposing animal bodies dead from anthrax and other malignant diseases. He said that M. Aimé Girard had found a safe method of destroying and rendering inocuous any such bodies. This plan is simply to immerse the cadevera in a sulphuric acid bath. But this method, M. Reynard said, could prove advantageous to assasins. It is true that, in order to work effectually, a quantity of acid equal in weight to the individual is needed,—certainly an enormous bulk when dealing with an adult. But if such a practice would offer impediments in disposing of adult bodies, no such inconvenience would be experienced in destroying mature fœtuses; a fact that would tend to encourage infanticidal practice. M. Reynard himself performed the following experiment. He procured a dead fœtus, at full term, and plunged it into a jar containing 3½ litres (about 8 pints) of ordinary elixir vitriol; the next day, at the expiration of 24 hours, he examined the jar and found no vestiges of the fœtus; it had dissolved completely, leaving behind it nothing but a blackish discoloration of the acid. The simple discovery of a vessel containing a good quantity of sulphuric acid in the house of a woman accused of infanticide would be a suspicious indication of her guilt. How would she dispose of the acid after using it? She might throw it into a closet. The acid once in contact with fœcal and excrementitious matters would attack the ammoniacal salts forming ammonium sulphate with a liberation of carbonic acid. Then it would happen that not only the fœtus would be destroyed, but even the traces of the medium in which it was dissolved would escape recognition. The only remedy to the trouble would be to regulate the sale of sulphuric acid, which is already becoming too popular as a destructive and disfiguring agent in the hands of the criminal classes. —*Gazette des Hopitaux.* R. M.

PASTEUR AND THEUILLER'S RESEARCHES ON THE PREVENTIVE VACCINATION OF "ROUGET," OR THE PNEUMO-ENTERITES OF PIGS.

At the meeting of the French Academy held November 26, M. Pasteur read a communication on this subject in which he highly eulogized his lamented associate, M. Theuiller; furthermore, he stated that he was desirous the Academy should become acquainted with the ætiology of this disease as investigated by M. Theuiller. The researches which this young but distinguished investigator instituted in 1882, when the rouget was decimating the swine farms in the department of Vienne, proved that the disorder was attributable solely to a specific microbe, which was susceptible of cultivation and inoculation. When healthy animals were inoculated with he culttivated microbe they perished almost infallibly with the fatal malady. M. Pasteur then devoted himself to the means of attenuating the virulence of this organism. He attained his purpose after carefully cultivating many generations of the parasite in the bodies of rabbits. After a few generations had been successfully reproduced, the microbe of rouget became acclimated, so to say, in rabbits (i. e. was innocuous when injected in these anlmals). He then took the microbe thus cultivated and inoculated it again in pigs, which this time were not only lightly affected by the previously lethal germs, but were given a mild form of the disease that successfully protected them from future epizootics.

It was in this way, he said, "that the vaccinated swine in the Department of Vaucluse resisted, *every one*, successfully, a most deadly epizootic that prevailed there some time after my experiments."

These experiments, and other facts related in the paper, did not admit of any doubt in M. Pasteur's mind, on the truth of the following conclusions:

1st. Epizootics of rouget, even the most violent, can be prevented by inoculating the attenuated virus of the disease.

2d. It is an established fact, that this immunity is preserved over one year; that in consequence, this immunity suffices to cover the exigencies of practical swine raising, as the fattening of the animals is not prolonged over this period.

3d. Notwithstanding these remarkable results, Pasteur believes that the application of these inoculations to various

races of the porcine species, requires further control experiments before the vaccination of swine can be generalized. —*Gazette des Hopitaux.* R. M.

VERATRIA: A REMEDY FOR THE TREMOR OF VARIOUS DISEASES.

Dr. Bazile-Feris, of the French navy, after experimenting considerably with veratria, determined to try it in the treatment of the tremulousness symptomatic of certain diseases. He employed veratria in thirteen cases of general shakiness, of which six were of alcoholic origin, two as sequelæ of typhoid fever, and another one dependent upon disseminated spinal sclerosis. All the patients were relieved completely of this annoying symptom: the last, however, was not long improved before the tremor re-appeared, but, this, upon a second exhibition of veratria, was very much palliated.

M. Feris usually prescribes veratria in doses of four pellets containing half a miligram each, to be taken during the day at an hour's interval. After the fourth dose, the patients usually appear much relieved. This improvement can be easily ascertained by causing the patient to write in the morning at eleven, before administering the first dose, and again at five in the evening, after the four pills have been ingested. The duration of the treatment has varied according to the subjects, from five to fifteen days. In order to obtain a permanent effect, the medication must be continued at least during ten days, even after all symptoms have disappeared after the administration of the remedy. As a result of his observations, Dr. Feris draws the following conclusions: The tremor dependent upon alcoholism, or the affections dependent upon disease of the nervous centers, is especially benefitted by veratria. It is probable that in all cases of trembling, no matter what be their origin, its action is beneficial, but it is more marked in cases of chronic alcoholism.

The action of the veratria is almost instantaneous, irrespective of the seat of the tremor, whether in the lips, tongue, superior or inferior extremities; finally, the influence of this agent, if it has been continued a sufficient length of time, remains, long after the cessation of its administration, and may be radically curative after a few doses.—*Journ. de Med. et Chir. Prat.—Journal de Medicine.* R. M.

A VERY SIMPLE WAY OF DIAGNOSTICATING DIABETES MELLITUS.

Dr. Charnaux, of Vichy, after a large number of observations, writes:

"Every time that a new client presents himself at my office for consultation and often passes his tongue over his lips in the course of conversation, I suspect him of being a diabetic subject. All diabetic patients continually moisten their lips with the tongue in conversation."

It may well be that some people do this for some reason or other, outside of the disease just given, but, as a rule, it is almost an infallible symptom of polyuria diabetica.

This year I have examined 134 diabetic patients, each one of whom presented this peculiarity.

This symptom is, of course, easily explained by the dryness of the mouth and mucous surfaces in this condition. R. M.

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

PUBLISHED MONTHLY.

Communications relating to medicine are invited from every source. Matters of more than ordinary importance are occurring daily to country physicians, brief reports of which this Journal would be glad to get.

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EDITORIAL.

"FIEVRE DE CROISSANCE" A RECENT ADDITION TO PÆDIATRIC PATHOLOGY.

The more we progress on the path of scientific investigation the more we verify the value of an often quoted assertion: that popular traditions of long standing are as a rule real exponents of underlying and unappreciated truths. It is probable that this observation holds good with more force in medical inquiry, and especially, its pathological

department, than in any other branch of human knowledge. In fact, notwithstanding the grossly imperfect and distorted conceptions that are entertained and continually exhibited by the masses on the nature of the most common clinical phenomena, the opinions held and remarks made by the laity on the subject of disease not infrequently involve some fundamental teaching which, though at first seemingly meaningless and even ridiculous to the learned, are found true upon maturer experience and more enlightened reflection. Without recurring to past history for illustrations of this well attested observation, as this is not our intention here, we would adduce, as a striking example, the interesting condition very recently described by MM. Guillier and Bouilly (*Gazette des Hopitaux*), under the title "*fievre de Croissance*," or fever of growth. Anyone who has had much to do with children will at once recognize the meaning of this term, and those of us especially who have had many dealings with our creole French population will be immediately reminded of an old acquaintance when reading the title to these lines. How often have we not heard creole mothers say of some of their children, whom we have believed ill with a more classical disorder, "*cet enfant grandit trop vitte, il à la fievre de croissance;*" which we have again heard involuntarily translated by some English-speaking mother: "My child is growing too fast and has growing pains—it has fever." Equally well do Spanish-speaking people interpret the significance of some puerile pyrexiæ under the name: "fiebre de crecimiento," and doubtless the various peoples of the earth have understood the same condition, or at least recognized it, and given it appropriate names in their respective languages. Notwithstanding the fact, however, that the populace has been noting the condition now under consideration, probably for centuries, and thrusting it continually before our eyes, we have extraordinarily demurred in accepting or even investigating the truth of its existence. It is true that some of the oldest and shrewdest clinicians alluded to this condition in their writings.

Sydenham, Cullen and Booerhave observed febrile phenomena associated with a too rapid growth of the body in childhood or adolescence; but, in reality, most of the older authors, in their writings, merely noted the fact that during the course of certain disorders in children a greater impetus appeared to be given to the development of the body. Graves and Trousseau noticed the unusual lengthening of children during and after the course of various diseases, but never explained its meaning. It is probable that the latter day clinicians of the French school were the first to gain some insight into the subject, as it is not improbable that the excessive closeness of observation which they always display in their clinical investigations, should have led them to notice more than others the frequency of this condition. It it certain, anyway, that Richard (of Nancy), in his *Traité de Maladies des Enfans* (quoted by Guillier) gave the first clear intimation that such a malady existed, when he wrote: "We may thus explain (by a primitive osteitis) the phenomenon of extraordinary lengthening of the body which is offered daily as a problem to the sagacity of the physician in pædiatric practice."

In 1860, Requier wrote a treatise on "Developmental Diseases," and gave some consideration to this condition. Rilliet and Barthez, in their work on Infantile Disorders, speak of the dangers attending excessive development of the tissues. Bouchut himself, that great authority in all that concerns the ailments of infancy, reported not many years ago, a curious case of a little child, twenty-five months old, that in the course of six weeks grew eight centimeters in length and had a fever of a remittent character, which the author attributed to excessive developmental activity.

The question remained undisturbed, and would probably have been left untouched, had not M. Bouilly, an agrégé of the Paris faculty, called it into existence by a series of valuable contributions on the subject published in 1882.

Dr. Octave Guillier (in No. 130, Nov. 13, *Gazette des Hopitaux*) reported the case of a young girl who in five

months grew four centimeters in height and had also a fever of an irregular character which coincided with this period of development. Bouilly added a very interesting letter on the subject, from which we abstract the following details:

The "fievre de croissance" may be defined as a morbid entity, which is characterized by a fever of special duration accompanied by spontaneous or provoked pains situated in the developmental area of bones.

In the majority of children, the development of the skeleton is effected in a slow and gradual manner, and is not associated with any external manifestations of the internal work. In others, on the contrary, this developmental process is manifested by a state of general painfulness, more or less accentuated and accompanied by pyretic paroxysms which seem to coincide with an exaggeration of the physiological work about the ossifying centers of the skeleton.

These systemic disturbances may become manifest from the earliest period of osseous development to the final ossification of epiphyseal cartilage Practically, it may be said, that these disturbances do not commence before the fifth year or later than the twenty-first. It is common to both sexes, though slightly inclined to be more frequent in male children.

Like acute osteo-myelitis, which Bouilly is inclined to believe is the most intense manifestation of this developmental fever, it has been observed that excessive fatigue from prolonged exercise, such as that occasioned by long walks, bycicle-riding, gymnastic exercises, swimming, etc., are the most frequent exciting causes of the troubles.

This *fievre de croissance* does not present itself always under the same physiognomy: according to Bouilly, various types of it may be recognized: 1st. An acute and rapid form, the most frequent and least dangerous; 2d. An acute protracted form, generally quite serious; 3d. A lingering, chronic form.

In these various types of the same disease two elements

are never missing and are sufficient to characterize the malady: the first is *fever*, the other, osseous pains in specific spots.

The fever manifests itself irregularly; in the first, an acute, rapid form, the pyrexia comes on suddenly with great intensity either in the morning or night; it is a real febrile paroxysm, such as would be expected in the invading period of pneumonia, or scarlet fever, insomnia, jactitation, sometimes delirium, and even convulsions may attend an elevation of temperature of 39 or 40 C., and even more. The fever usually ceases after 24 or 36 hours, rarely over this.

In the second and third forms, the temperature is usually of an irregularly remittent character which may be 100½ or 101 or 102° F., and nearly run this way for months.

As regards that most important element, pain—the really diagnostic sign of the disease—we would say that spontaneous pain is rarely complained of by the little patients; they usually speak of a great sense of fatigue, vague pains about the extremities, but never localize the trouble with the precision that is so demonstrable by direct palation.

It is only by the pain elicited on pressing the epiphyseal extremities of bones that the more valuable diagnostic signs are determined. It may be well compared in value to the painful points in neuralgia. It is always found in the line of an epiphyseal junction. In order of frequency and intensity Bouilly mentions: first, the lower extremity of the femur; the bone when seized between two fingers above the femoral condyles, becomes at once exceedingly painful, particularly on its internal surface. Next, a point below the gluteal region over the two trochanters: third, a spot on the shoulder, to be detected by pressing about the anatomical head of the humerus: then follow all the lines of epiphyseal junction in various parts of the body.

As to a definite knowledge of the pathology of this disturbance we have none. Bouilly suggests several hypothesis, the least improbable of which might be "a state of

hyper-nutritive activity, bordering on inflammation, suddenly excited about the epiphyses which would cause such an accumulation of waste products that their elimination could not be rapid enough to prevent irritative phenomena, such as fever, etc."

The anatomical characteristics have not yet been made out; tumefaction, with induration and redness over the epiphyseal regions, are not infrequent sequelæ of the process.

Rheumatism and malaria are the states most readily confounded with this *fievre de croissance*, but they can be eliminated by the following characteristics of the malady: (a) fever of an irregular character; (b) pain over the epiphyseal zones; (c) pain and tumefaction outside of joints; (d) increased height of patient; (e) youth of patient.

LAWSON TAIT'S SURGICAL TREATMENT OF PYOSALPINX.

Among the interesting proceedings of the London Societies, of recent date, those of the Obstetrical Society at its meeting, November 7th, are not the least instructive. It is evident from the minutes, as published in the *British Medical Journal*, that the now great operator, Lawson Tait, is striking heavy blows on the bell of fame, and in a way that will not fail to rouse admiring echoes throughout the surgical world. At this meeting Tait reported three cases of acute peritonitis due to pyosalpinx, cured by abdominal section, removal of the diseased appendages, and cleansing and draining of the peritoneum The first case was one of chronic pyosalpinx, "made acute by a stem pessary." The tube burst, and acute peritonitis followed. Abdominal section was promptly performed, and the patient saved. The second case, already reported in the *British Medical Journal*, had made a perfect recovery, all symptoms having disappeared after the operation. The third case was one of purulent peritonitis, arising from

a suppurating Fallopian tube. The pyosalpinx was due to gonorrhœal infection. The left tube only was removed. The patient recovered completely. Mr. Tait has already operated on sixty-five (65) cases of occlusion and distension of the Fallopian tubes *without a death*. In only one had there been a failure to completely relieve the patient's sufferings. Six cases had been lost sight of, and two had died since the operation from causes independent of it. Cases such as these, the speaker believed, could not be relieved by anything short of removal of the diseased organs, and they existed in large numbers, forming a large proportion of the cases which wandered about from one practitioner to another, seeking relief. In answer to various queries, he made the following among other statements, that: If he were called to a case of puerperal peritonitis sufficiently early to promise a good result, he would open the abdomen, wash out and drain the cavity; but as yet he had not had a chance of doing this. He had no doubt that many cases of hydrosalpinx, and some of pyosalpinx were cured by natural processes. In diagnosis he depended largely on the history, which started usually from an inflammatory attack. There was more or less constant pain, aggravated by movement and by intercourse, and menorrhagia, and there were physical signs of pelvic change. Errors in diagnosis, Tait says, occur in his practice about one in ten times, and are always instructive. He mentioned cases in which he had taken for pyosalpinx a small dermoid cyst. In these the initial point in the history was the only thing wanting. Cases of pyosalpinx were not often seen in hospital post-mortem rooms, because they commonly died from peritonitis too quickly to come into hospitals. "They were, however, exceptionally seen in hospitals. Hydrosalpinx and pyosalpinx occurred in his practice, he thought, in the proportion of about three to two. Hydrosalpinx was not dangerous to life, but often caused intense suffering; and therefore, he did not hesitate to remove it. He did not deem its rupture ever likely to prove fatal. The differential diagnosis between the two

could not be made. He used, in operating, a glass drainage-tube and washed out the abdomen with plain water."

Though pyosalpinx is probably not so common a disorder as Mr. Tait would make it, yet the number of cases diagnosed and happily treated by him certainly speak highly for both his diagnostic and surgical abilities.

Monthly Report of Obstetrical and Gynecological Work in the Charity Hospital.

(Service of Dr. E. S. Lewis.)

[By E. Laplace, Resident Student.]

There were 16 cases of confinement during November. Of these, two were cases of twins. In both cases the children were of the male sex. In each the presentation of both children was the vertex; in each case also the child born first was in the 1st position, and the one born last was in the 3d position. In one case, however, there was but one placenta giving rise to the two umbilical cords; whereas in the other there were two separate and distinct placentæ, that belonging to the child first born being delivered about 5 minutes before the placenta of the 2d child. In one case, however, delivery took place about two weeks before term, and both children were still-born—the mother having been on a continued spree for nearly three weeks.

Eclampsia.—J. R., aged 27, a primipara, strong and healthy, was reaching her last days of pregnancy, when owing to some violent emotion she suddenly fell in a spasm. This was the first she had ever had, and she remained in it during twenty minutes, after which she became conscious again and felt a great weakness and dizziness as a result. In the middle of the following night, twelve hours after the first attack, she got another similar attack and which returned afterwards at intervals of thirty or forty minutes, lasting about thirty seconds each. Her

urine was examined and found to contain about seventy-five per cent. of albumen. Inhalations of chloroform had no effect in stopping the spasms. This being the case, labor was induced immediately; podalic version was resorted to. After her delivery there was no recurrence of the spasm; and from the prostrated condition in which the patient found herself as a result of the eclampsia and labor, she gradually regained her strength and left the hospital in perfect health eighteen days after her confinement.

Ante-partum Hemorrhage. Puerperal Insanity.—J. L., aged 24, of a slim but muscular build, entered the lying-in-ward for confinement. As the first labor pains came on, there was a copious flow of arterio-venous blood following the rupture of the membranes. This excited some alarm as to the possibility of placenta previa; it was the first time however any such hemorrhage occurred. The hemorrhage having ceased of itself, nothing was done. Labor progressed naturally. The delivery of the placenta immediately followed the birth of the child, but there was also expelled a large, hard and flattened blood-clot, giving evidence of its existence in the womb for several hours. The rapid and natural expulsion of the placenta and the presence of the clot mentioned above, show that there was a premature separation of the placenta from the uterine walls, giving rise to the ante-partum hemorrhage. The case progressed very favorably, except as regards her mental condition. The next morning it was discovered that she had totally lost her reason and presented a plain case of puerperal insanity. She would not eat, if not compelled. Imagined every one about her to be an enemy; and would blaspheme persons and things she most reverenced. Distraction, light opiates and strong nourishment was the only course of treatment. At the end of two weeks she had sufficiently improved, both physically and mentally, to allow her friends to bring her to a purer country atmosphere.

Gynecological Notes. (Ward 35.)

OPERATIONS.

Colpoperineoraphy.—T. C., aged 18 years, was confined about two and a half months ago, suffering a severe laceration of the perineum, extending to within a few lines of the rectum. On November 14th, two months after the accident, Emmet's operation for lacerated perineum was performed. The sides and base of the laceration having been carefully pared, the silver sutures were introduced, bringing the parts in careful apposition. Daily carbolized injections constituted the sole after-treatment. On the 8th day after the operation, the sutures were removed and the operation found to have proved a perfect success

Tracheloraphy.—L. R., aged 28 years, had been suffering since her last confinement, eighteen months ago, with metrorrhagia and continual dragging down sensations about the abdomen; also cephalalgia and loss of appetite; her case was diagnosed ulcer of the womb by a midwife. On physical examination she proved to have a severe bilateral laceration of the cervix uteri. On November 16th, chloroform was administered, and the edges of the laceration were carefully pared, leaving the central mucous membrane intact for the formation of the future os internum. The denuded parts were then carefully brought together with silver wire sutures in the manner described for such operations and the parts allowed to heal. Nine days afterwards the six sutures applied were removed and all but one were found to have caused perfect union. Even the exceptional one had proved of sufficient benefit not to mar in any way the practical success of the operation. She was discharged in perfect health twenty-one days after the operation.

A second case presenting the exact history of the above was operated upon in a similar manner about two weeks ago, and the same success was met with. The patient is

still in the ward awaiting a second operation for a considerable prolapse of the uterus of which she is also a sufferer.

Concerted Action by State Boards of Health.

[*Reported for the New Orleans Medical and Surgical Journal*].

There has been a growing conviction among leading sanitarians intrusted with the official execution of practical health measures, that while the work of the American Public Health Association is of inestimable value in promoting the interests of sanitary science and sanitary reform, there is a constantly increasing need for an annual conference of State and other health officials in regard to practical affairs of their every day work, some part of which work cannot profitably be discussed in a public meeting consisting largely of persons not familiar with its details.

After due consideration, a meeting of representatives of State Boards was held at Detroit, during the recent meeting of the American Public Health Association, at which, after discussion, it was decided to call a meeting of the secretaries or other representatives of all State Boards of Health, in Washington, during May, 1884, for the purposes mentioned, and with the view of organizing a section devoted to State Board work in the present association, or the formation of a permanent separate organization especially adapted to the needs of State Boards of Health. Drs. Henry B. Baker, of Michigan, and J. N. McCormack, of Kentucky, were appointed to confer with and secure the coöperation of all the State Boards in fulfilling the object of the meeting, and Drs. C. W. Chamberlain, of Connecticut; J. E. Reeves, of West Virginia, and Stephen Smith, of New York, were appointed a committee on organization, to report at the meeting in May. The American Medical Association meets in Washington in May; and another reason for holding the meeting in Washington is that the representatives of the State Boards

may also have an opportunity for conferring with the senators and representatives in Congress from their respective States, in regard to national sanitary legislation. It would seem that whenever the health authorities of all the States shall meet, discuss, and agree upon the course they will pursue with respect to yellow fever, cholera, small-pox, or any disease which endangers public health, without regard to State lines or borders, and whenever all State Boards shall act in concert, considerable progress will have been made in solving the problem of what are the best methods for national action in regard to inter-State and maritime quarantine or inspection and disinfection, as well as in the practical control of epidemic diseases within the several States of this country.

Reviews and Book-Notices.

The Collective Investigation of Diphtheria, as conducted by the Therapeutic Gazette, Detroit, Michigan, with Editorial Summary. By L. L. Mulheron, M. D.

The above is the title of a brochure, of 120 pages, which has just been laid upon our table. The purpose and object of the above investigation are both praiseworthy and useful. Eight most pertinent queries are propounded by the editor on the nature, clinical facts, contagiousness or non-contagiousness of diphtheria, microscopical examinations of diphtheritic membrane, measures of prophylaxis, treatment, both local and general. Everyone must surely acknowledge that if the above range of questions is fully covered, and the answers are logical and satisfactory, that the deductions therefrom must be most valuable and useful. The completeness of the above task must certainly depend upon the care and scrutiny exercised in collating *facts* from such varied sources, harmonizing opinions often so contradic-

tory, and in the establishment of conclusions based upon the answers received. Thus the work at the same time would prove useful and authoritative, as advancing our knowledge of the disease in question.

CONCLUSIONS.

I. Diphtheria may be either local or constitutional in its origin.

Some may stigmatize this statement as both vague and unsatisfactory—such may be the fact—but in our opinion it is the only conclusion which can possibly reconcile the discrepancies in the testimony here elicited.

II. Diphtheria may continue as a purely local or as a purely constitutional disease, or the local disease may be followed by constitutional infection, or *vice versa*, the disease in the vast majority of instances manifesting itself in both the constitutional disturbance and the local affection.

We believe also in the correctness of this second conclusion. We have frequently noted in our own experience the fact of the disease, in one member of a family, running its course as a purely *local disease*, in another member of the same family presenting phenomena of the gravest constitutional disturbance from the beginning, and terminating fatally, without the appearance of any local manifestation whatsoever.

We believe, too, that both constitutional and local symptoms usually exist together, and form the *rule* in epidemic invasions.

III. The comparative value of local and constitutional remedies is dependent upon the nature of the affection in individual cases.

This is the inevitable corrollary of conclusion No. II.

IV. Diphtheria is a contagious disease, but not liable to attack a healthy mucous membrane or find an entrance through it into the circulation.

The first part of this conclusion we endorse, viz.: that diphtheria is a contagious disease. The qualifications fore-

shadowed by the latter part of the conclusion we do not comprehend, and therefore decline to admit as scientific or satisfactory.

The *germ theory* we admit as explaining more of the inexplicable facts in the history of infectious diseases than any other known to us. But accepting this theory we accept it in its entirety; quoting from Maclagan, "Germ theory of disease," page 16 and seq., "Contagium only manifests its vital properties, and its coincident disease producing powers in the body of a *susceptible* person. *Separated from the conditions essential to its propagation* it *ceases* to display the properties of a living organism, and becomes *subject* to those changes which are very apt to take place in all *protoplasm* which is not in a state of *vital activity*. "Of all perishable things *protoplasm* is the most perishable." Again, it is evident from all we know of germs that their *destruction* is as much a law of nature as their development: that placed in circumstances *favorable* to such a result, they grow and reproduce their kind; that *separated* from such circumstances they die. Hence if we could have clearly defined to us the meaning of the words "*susceptible*, healthy, etc.," as applied to persons exposed to contagion we might agree to the conclusion as adopted.

V. The contagium of diphtheria is not a micrococcus, nor is it visible under the most powerful microscope yet manufactured.

Our summarizer in this instance is apparently in conflict with his usually harmonizing spirit. This conclusion strikes us as somewhat dogmatic. We would rather believe that so far the micrococcus of diphtheria is not *proven*, though believed in by many writers, and that so far it has eluded the vigilance of the most careful microscopists, but may be discovered in the future.

VI. The contagium of diphtheria is of a gaseous nature, (the result of decomposing fœcal and other organic matter), and can be neutralized only by a true disinfectant and not by an antiseptic.

The views embodied in this conclusion may be justified by a critical review of the replies received, but in our opinion is far from satisfactory, being in reality the mere substitution of one hypothesis for another.

VII. The best local application is the chloride of iron. It may be supplemented by other applications according to the indications in individual cases.

The very general recommendations of the above remedy in the replies, entitle it to particular consideration, and strengthen the opinions generally held in regard to its value.

VIII. The treatment indicated here may certainly be considered *heroic*—if there could be no mistake about diagnosticating a *typical case* of *sthenic diphtheria*, the patient might survive the treatment—a little less violent system of medication in our judgment would be safer, to say the least of it. D. C. H.

Transactions of the American Otological Society, Sixteenth Annual Meeting. Hotel Kaaterskill, Catskill Mountains, July 17th, 1883. Vol. 3, Part 2.

The ear and its diseases are regarded with so little interest by the vast majority of medical readers that although the copy of the transactions now before us is of considerable value to otologists, we are fain to content ourselves with mentioning the titles of the papers, only adding a remark here and there upon the most important points.

The ten papers included in the pamphlet are:

Report of a case of Teratoid Tumour of both Auricles, having a clinical History of a Recurrent Fibroid. By. Dr. E. E. Holt, Porland, Me.

A very interesting case from a pathological point of view. The tumour at first appeared to be one of the simple fibroids which frequently develops in a pierced lobule, but after the lapse of some twenty years, during which period it suffered removal about seven times, it assumed a most complicated structure, being found to contain when

last removed and examined, smooth muscle, dermoid tissue, cartilage, glands and hair. The whole paper is a thoughtful and suggestive one.

A case of very obstinate Desquamative Otitis Media, cured. Remarks: By Dr. H. Knapp, New York, N. Y.

An account of an extremely intractable case of purulent desquamative otitis media cured by inducing an acute purulent inflammation by means of cotton pellets steeped in glycerine and nitrate of silver, and the subsequent treatment of the acute process with boracic acid in solution and in powder. In his remarks Dr. Knapp upholds the evident reasonableness of this plan, and expresses, incidentally, his disapproval of the treatment of polypi by the use of caustics and sharp instruments, instead of the forceps and snare, as liable to injure component parts of the ear and produce extensive cicatrization in the mucous membrane of the tympanum.

Anomalous Sebaceous Gland in immediate Proximity to the Auricle. By Dr. C. A. Todd, St. Louis, Mo.

On the Association of Aural Disease with Simple Sparkling Synchisis of the Vitreous Humor. By Dr. C. J. Kipp, Newark, N. J.

Dr. Kipp gives the notes of seven cases of sparkling synchisis, in six of which there was also aural disease. Of the seven cases, "sparkling synchisis was confined to one eye in five; in two of these, the ear of the same side only was the seat of disease; in the remaining three both ears were affected. In one case, both eyes and both ears were diseased." Two of these cases were above 35, two above 50, and two above 65 years of age. Now, as sparkling synchisis is a disease of advancing years, and as deafness is extremely common at this period of life, the chances are in favor of a person being found more or less deaf who happens to be the subject of sparkling synchysis. Again: Drs. Knapp and Little had of late seen three cases each of synchisis, and Dr. Webster a certain number; but none of these gentlemen could corroborate Dr. Kipp's observations. Considering which

facts, we are inclined to regard Dr. Kipp's cases as mere coincidences.

A case of Primary Epithelioma of the Auricle. By Dr. W. W. Seely, Cincinnati, O. The interest of this case consists "in the disease appearing where epithelioma is not likely to develop, and trauma is not likely to occur." The trauma in question was a rat-bite of the helix, which had remained unhealed for six years and finally developed into epithelioma.

Observations on the Hearing Power in Differing Conditions. By E. E. Holt, Portland, Me.

The Significance of the Transmission of the Sound to the Ear through the Tissues in the Aural Disease. By Dr. S. Sexton, New York, N. Y.

Both of these papers go far towards confirming the suspicion now existing in the minds of most aurists that the tuning fork is by no means a reliable instrument for distinguishing the deafness resulting from *impairment* of the *auditory nerve*, from the deafness which has its origin in some *fault* of the *conducting apparatus*.

The Recognition of Cerebral Complication in Aural Affections by Means of the Ophthalmoscope. By Dr. J. A. Andrews, Staten Island, N. Y.

A report of four cases of chronic purulent middle ear inflammation, with consequent fatal involution of the brain, in which the opthalmoscope showed optic neuritis in both eyes, in one instance; in the eye upon the same side as the diseased ear, in three cases. It seemed to be the sense of the society that the eyes should be examined in cases of purulent middle ear disease presenting any cerebral symptoms, and that the finding of the optic neuritis would tend strongly to confirm the diagnosis of brain lesion.

Acute Desquamative Inflammation of the External Auditory Canal. Acute Otitis Media, Mastoiditis and Chronic Meningitis. Recovery. By Dr. Read I. McKay, Wilmington, Del.

Mastoid Disease—Artificial Perforation of the Bone. Temporary relief; death from Pyæmia. By Chas. H. Burnett, M. D., Philadelphia, Pa.

An extremely interesting history. The termination of the case in death by pyæmia is decidedly rare.

In the long and apparently somewhat heated discussion which followed the reading of this paper, a most curious difference between the experiences of the participating aurists was developed. Some had seen many cases of mastoid disease and had performed perforation, while others had never seen a case and had never perforated the bone except in the cadaver. The judgment of the majority of the members of the society, however, appeared to be in favor of opening the bone so soon as symptoms of the cells having become involved in the inflammatory process made their appearance.

And this we hold to be wise, for the operation should be a safe one, in ordinarily careful hands, and, indeed, the initial incision may prove to be all that is needful, while the failure to promptly liberate pent up pus may readily become a fatal mistake.

A few other items contained in the report are not of general interest. H. D. B.

The Pathology and Treatment of Venereal Diseases. By Freeman J. Bumstead, M. D., LL. D., Late Professor of Venereal Diseases at the College of Physicians and Surgeons, New York, etc., etc., and Robert W. Taylor, A. M., M. D., Professor of Venereal and Skin Diseases in the University of Vermont, etc., etc. Fifth Edition, Revised and Rewritten, with many editions, by Dr. Taylor. With one hundred and thirty-nine wood cuts and thirteen chromo-lithographic figures, Phialadelphia: Henry C. Lea's Son & Co. New Orleans: Armand Hawkins. 8 vo. Sheep, pp. 906. [Price, $6 75.]

With the preparation of the fourth edition of this work four years ago, the lamented Bumstead brought it up to the latest advances in syphilography, and Dr. Taylor as his co-laborer in that edition has in this the fifth edition continued the work left to him by the master and given us all that is known at the present day of venereal diseases.

The name of Bumstead is too well known to every physician throughout the land for this book to require an extended notice. The text has been revised and additions made by Dr. Taylor, and much new matter has been incorporated, especially in regard to treatment. The author lays particular stress upon the use of fluid extract of coca as an adjuvant in the treatment of syphilis, giving it in conjunction with or preparatory to the exhibition of mecurials. In that class of cases in which mercury is not well borne, the author states that the use of coca for a short preliminary period never fails to enable us to use mercury without any ill effects.

The inoculation of animals with syphilis and the bacillus origin of the disease are, after a careful resumé of the literature upon the subject, considered by the author as not proved, Some very interesting data upon these much disputed points are given.

A short chapter on "syphilis and marrige" has been added by Dr. Taylor, which is not very satisfactory inasmuch as so little is said by which one seeking for thorough information may be guided. Two years from the time of the primary infection is the period laid down at which a syphilitic may marry, provided he has been under constant treatment and is at the end of that time apparently free from the disease. In this the author does not follow the doctrine of Fournier, which we believe the best; that is, that the patient should be kept under observation for one year after treatment has been suspended and then if no symptom of the disease is apparent, he may marry. We have seen cases in which the patient has been under treatment almost constantly for more than two years with an apparent disappearance of the disease and yet within a very short time after the cessation of treatment the disease has manifested itself. Of course these are exceptional cases, but no rule should be laid down which cannot be applied to all.

The work is profusely illustrated and gotten up in the usual excellent style of the Leas.

Outline Diagrams of the Ear for the Pictorial Record of Diseases of this Organ and its Connections. For the Use of Practitioners, Students and Clinical Assistants. Cincinnati: A. E. Wilde & Co.

A clever idea neatly executed. We have no doubt that these diagrams will be highly appreciated by all practitioners, students, and clinical assistants whose pencils are not of more than ordinary artistic ability. We submit, however, that had the diagrams been printed upon somewhat thinner paper, had each page been divided into three rectangles (each rectangle bearing one diagram) by perforated lines, and had the edges of these rectangles been gummed, so that each diagram could have been torn from the containing book and gummed (somewhat after the manner of a postage stamp) into the practitioner's case note book, they would have been still more desirable and still more sought after. We would also suggest to the publishers that a similar set of three eye diagrams—the colored eye, the open eye, and a map of the fundus—would also commend itself to large class of workers. The diagram of the open eye might show the pupil in medium dilation, and be accompanied by a still smaller figure, giving only the outline of the corneal limbus, and showing the pupil dilated *ad maximum*.

Such diagrams would be invaluable in large hospitals.

H. D. B.

Chemistry: General, Medical and Pharmaceutical, including the Chemistry of the U. S. Pharmacopœia. A Manual in the General Principles of the Sciences and their applications in Medicine and Pharmacy. By John Attfield, F. R. S., M. D. and Ph. D. of the University of Tübingen, F. I. C., T. C. S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc., etc. *Tenth Edition*, specially revised by the author for America. Philadelphia: Henry C. Lea's Son & Co., 1883. [New Orleans: Armand Hawkins, 196½ Canal street. Price $3.]

It is unnecessary to say that Attfield has always been a most popular teacher of chemistry. The author's ideal of

a manual of chemistry for medical and pharmaceutical students, in which not only the science of *chemistry* is taught, but the chemistry of every substance having interest for the followers of medicine and pharmacy, is noticed at more or less length in proportion to its importance, has been fully realized. The clearness, system, and thoroughness of this manual have made it for the last sixteen years the constant companion of the medical and pharmaceutical student. Within this time it has undergone ten editions which have progressively enlarged its scope and general usefulness. The present (tenth) edition contains such alterations and additions as seemed necessary for the demonstration of the latest developments of chemical principles and the most recent applications of chemistry to pharmacy. The work now includes the whole of the chemistry of the recently published United States Pharmacopœia, and nearly all the chemistry of the British and Indian Pharmacopœia.

The index, which has been largely augmented and carefully revised, contains eight thousand references.

As in past reviews, we again welcome this book, and give it a cordial endorsement.

Students' Manual of Diseases of the Nose and Throat. A Digest Descriptive of the More Commonly Seen Diseases of the Upper Air-Tract, with the Methods of their Treatment. By J. M. W. Kitchen, M. D., Assistant Surgeon to the Metropolitan Throat Hospital; late Instructor in Diseases of the Nose and Throat at the New York Post-Graduate School, etc., New York: G. P. Putnam's Sons, 27 and 29 West 23d street, 1883. [New Orleans: Armand Hawkins, 169½ Canal street, pp. 127, 12 mo.]

The author introduces his book with the following excuse for its existence. "In this day when so much is required of even the average graduate, that very hard worked individual has very little time to sift out the important points from the mass of words and discussion, even if he were able to differentiate the one from the other, and

hence results much mental confusion; and it would seem that there should be room for many digested and easily absorbable books relating to all branches of medical science." The usual "that it may even be of value as a handy book for quick reference to the general practitioner" (poor wretch) is not omitted.

The book contains but the briefest summary of what is known of the most prominent diseases of the nose and throat. It may serve to refreshen the memory of a hard worked student just before entering the green-room, but this is about all. It has no original features. About nineteen illustrations assist the text, most of them second-hand. Outside of the good intentions of the author and a commendable terseness of expression, we can say nothing in praise of the book. It is a mere fungoid, (though not of the toxic variety) which will probably find in an ephemeral existence its most striking commentary.

Visit-List for 1884. The Physicians' Daily Pocket Record, Comprising a Visiting List, Many Useful Memoranda, Tables, etc. By S. W. Butler, M. D. Eighteenth year. New and thoroughly revised stereotype edition, with metric posological table, etc. Edited by D. G. Brinton, M. D. Philadelphia: Published at the office of the Medical and Surgical Reporter, 115 South Seventh street, 1884.

This handy and well arranged little record contains a perpetual almanac, an exposition of the metric system, a general posological table, doses for hypodermic medication, inhalation, suppositories and pessaries. The treatment of emergencies, toxicological synopsis, urinary analysis, lists of new remedies and pharmaceutal novelties, table for calculating utero gestation, and the various records needed by a careful practitioner doing a practice of thirty visits a day. It will be found a very satisfactory book of its kind.

The Physicians' Visiting List (Lindsay and Blakiston's) for 1884. Thirty-third year of its publication. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street.

This tried and old companion of the physician contains an almanac, Marshall Hall's ready method in asphyxia, poisons and antidotes. The metric system, posological tables, tables for calculating the period of utero gestation, list of new remedies, Sylvester's method for artificlal respiration, diagram of the chest, and blank leaves for visiting leaves and other numerous memoranda needed by the practitioner.

The long experience of the publishers and the excellent reputation of this record are sufficient guarantees of its excellence.

Medical Record Visiting List or Physician's Diary, for 1884. New York: Wm. Wood & Co.

This is probably the neatest and most elegant visiting list that has yet reached this office.

It contains a visitng list for thirty patients a week, with ample space for charges, and special columns for figures and indexing the pages of the patient's account in the ledger. The pages are especially ruled for keeping a record of consultation practice, obstetric engagements, deaths, nurses' addresses, etc., with a department for cash accounts. It also condenses a large amount of practical information such as that needed in toxicological emergencies, etc. With its magnificent Turkish Levant leather binding and gilt edges, it is a diary that the most fastidious of fashionable doctors might feel proud to exhibit about himself.

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Current Medical Literature.

Aphorisms Concerning Ligation for Arterial Hemorrhage. By John B. Roberts, M. D., Philadelphia.—I have elsewhere expressed an opinion that styptics are practically useless in general surgery, because either needless or inefficient; and that hemorrhage should be controlled by pressure or ligation. I now desire to formulate the manner of applying ligation to the arrest of arterial bleeding. The five rules which should guide the surgeon are expressed in the following aphoristic sentences:

I. In primary hemorrhage do not ligate arteries not actually bleeding, but have the patient carefully watched.

Reasons for this rule:—

1. It is possible that bleeding has permanently ceased.

2. It is difficult to be sure from which arteries the bleeding came.

3. All manipulations in wounds are to be avoided unless demanded.

Exceptions to this rule:—

1. When a large vessel is plainly seen pulsating in the wound.

2. When the occurrence of even slight secondary hemorrhage would be very disastrous, as in very anæmic patients.

3. When the patient must necessarily be away from surgical scrutiny.

II. In both primary and secondary hemorrhage the ligature should be applied, when practicable, in the wound at the point where the artery bleeds and not above, in the continuity of the vessel.

Reasons for this rule:—

1. It is frequently impossible to know which artery is injured until the artery is opened.

2. Secondary hemorrhage may occur even after such ligation in continuity from establishment of the collateral circulation. This secondary bleeding may come even from the proximal end of the cut vessel, if a branch of considerable size is given off between the wound and the point of ligation.

3. Ligation in continuity makes a second wound and adds the possible complications of this wound to the patient's original dangers.

4. Ligation in continuity remains as a reserve step, still possible, if ligation in the wound fails.

Exceptions to this rule:—

None.

III. If the artery is completely severed both ends should be ligated; if it is partly divided or punctured, a ligature should be applied on each side of such wound.

Reasons for this rule:—

The collateral circulation will probably cause secondary hemorrhage from the distal portion of the vessel, unless double ligation is adopted.

Exception to this rule:—

When the distal end of the artery cannot be found, pressure must be made in its neighborhood.

IV. If a large artery is wounded near its origin, tie it below the wound, and tie the trunk from which it arises both above and below the point of origin of the branch. If a trunk is wounded near the origin of a large branch tie the trunk with two ligatures in the ordinary manner, and apply a third ligature to the branch.

Reason for this rule:—

The force of a large current of blood near the internal clot may lead to its displacement and cause secondary bleeding when the silk ligature causes ulceration of the external coat, or the catgut or flat ligature has been absorbed.

Exception to this rule:—

None.

V. When ligation of the artery in the wound is impracticable, as happens in deep wounds of the pelvis, ligation in continuity may be permitted.—*The Polyclinic.*

Bacillus Tuberculosis.—At meeting of the Philadelphia County Medical Society held November 14th, Dr. Henry F. Formad gave an interesting account of his recent visit to Koch, in Berlin. Dr. Formad still retains the views which he expressed at a meeting of the Society about a year ago: that the *bacillus tuberculosis* is not yet proved to be the specific cause of tubercle. He believes that the condition of the individual is an important factor in the causation of tuberculosis, and he has lately succeeded in producing it in animals under conditions precluding the introduction of the specific bacillus. He pointed out that

Koch has now abandoned the differentiation by staining, and relies solely upon the pathogenic features.

In speaking of the communicability of tuberculosis, Dr. Formad related a story which had been told him by Virchow. The latter had been engaged in an official investigation as to the transmission of tuberculosis from cattle, and it was found that all the individuals affected with the disease had been using milk from healthy cattle, while those who used the milk from diseased cattle were unaffected. Dr. Formad declared that some of the German medical journals were so completely under control of Koch and his friends, that they would admit nothing to their columns which opposed the doctrine of the specific nature of the *bacillus tuberculosis*. In conclusion, the lecturer suggested that this question of contagiousness of tubercle should be discussed by the Society from a clinical standpoint. The discussion on the paper was postponed to a subsequent meeting.—*Polyclinic.*

Rule for Reducing Dislocations of the Hip Joint.—Having flexed the leg on the thigh, and the thigh on the pelvis, slowly rotate the limb as far as possible, inwards or outwards, according as the toes pointed in or out before beginning the manipulation; then rapidly and forcibly rotate the limb in the opposite direction, and the head of the femur will usually slip into the acetabulum.

For example: In the iliac and the sciatic dislocations, the toes point inwards; therefore, rotate inwards as far as possible, and afterwards rotate outwards, In the pubic and thyroid dislocations the toes point outwards, hence rotate the limb outwards still more, and then inwards.—*Polyclinic.*

Philadelphia County Medical Society.—At a conversational meeting, held at the hall of the College of Physicians, Philadelphia, November 21, 1883, Dr. William M. Welch, President of the Society, in the chair, Dr. J. H. Musser read a paper entitled "Further Notes of the Use of Hamamelis in the Treatment of Varicosed Veins."

After referring to his original paper in the *Medical Times*, which first called attention to the use of hamamelis in the treatment of varicosed veins and their sequences, he reported the subsequent experience of a

number of clinical observers upon its effects, several of which confirmed his statements as to the value of the remedy in varicose veins. The fluid extract—a dark-colored preparation—is used in doses of a drachm three or four times daily. It has also been found useful in phlebitis of chronic Bright's diseases, hæmaturia, menorrhagia, and bleeding hemorrhoids: cases of which were mentioned in the communications he has received in response to the original paper. The combined testimony shows that the remedy has a decided effect upon the venous structures.

NOTE ON PARALDEHYDE AS AN HYPNOTIC.

J. C. Wilson, M. D., read a note upon paraldehyde, in which he gave a description of its physical characters and chemical constitution. A limpid fluid of an ethereal taste and odor, it may be administered internally in doses of half a fluidrachm to two fluidrachms well diluted with water. Given in this way, it produces drowsiness without preliminary excitement, and it has been utilized by Italian physicians in dementia paralytica, in hysteria and in other forms of disorder of the nervous system. In several cases mentioned by the lecturer it acted well as an hypnotic, its usefulness being shown most markedly in a gentleman suffering with depression and sleeplessness after a debauch, upon whom bromide of potassium and chloral, in reasonable doses, failed to have any influence. In its action it most resembles chloral, and it may prove a useful addition to our sleep-producing drugs.—*Philadelphia Med. Times.*

Is Iodine the Chief Medicinal Element in Cod Liver Oil—The above question is suggested by a paper read before the British Pharmaceutical conference by Ed. C. C. Stanford, F. C. S., in which he states that the proportion of iodine found in cod liver oil is far less than has generally been supposed, and that most of the analysis published, give results far in excess of the reality.

According to Garod's Materia Medica, cod liver oil contains 0.06 per cent. of iodine; this is evidently an error for even if we place the decimal point further to the left there is still a larger amount of iodine than has been found by the analysis of more recent investigators.

The analysis of Mr. Mitchell Bird give the mean pro-

portions per cent. as 0.000332. The Norwegian pale oil being the richest in iodine, containing 0.000434 whilst the *light brown*, so much wanted in former years, contains only 0.000360.

According to the same author the herring contains four times as much iodine as the cod. If then, the iodine is the chief medicinal element would it not be well to obtain and use the oil of this very abundant fish in preference to the more expensive and consequently more liable to be sophisticated cod liver oil ?

R. N. G.

Collodion as a Vehicle for Topical Applications. —From a number of conclusions suggested by the *Chemist and Druggist* we select the following :

Wood tar ..... 1 gramme
Collodion ..... 4 grammes M.
Coal tar collodion—alcoholic extract of coal tar evaporated to the consistence of syrup ..... 1 gramme
Collodion ..... 4 grammes M.
Oil of Cade ..... 1 gramme to 5 grammes Collodion
Oleate of mercury .... 1 gramme to 4 grammes "
Oleate of Zinc ..... 1 gramme to 4 grammes "

For the following, flexible collodion is recommended :

Glacial Acetic Acid . . 1 gramme to 4 grammes of flex. col.
Carbolic acid ..... 1 gramme to 4 grammes " "
Oil of Mustard ..... 1 gramme to 4 grammes " "
Creosote ..... 1 gramme to 7 grammes " "

Aconitia, atropia and hyoscyamia dissolve readily in collodion.

Veratria is recommended to be dissolved first in a small portion of oleic acid and the resulting mixture added to the collodion. The proportions given are 1 gramme in 16 grammes.

Morphine is to be dissolved in oleic acid, and added to the collodion the proportions recommended are : 0.30 to 0.60 to each 30.0 of collodion.

Although it is probable that the effect of many of the medicines would be modified by collodion, still many of these combinations may prove useful, as they have the advantage of being cleanly and of being easily retained in situ.

R. N. G.

METEOROLOGICAL SUMMARY—NOVEMBER. STATION—NEW ORLEANS.

DATE.	Daily Mean Barometer.	Daily Mean Temp'rature	Daily Max. Temp'rature	Daily Min. Temp'rature	Daily Rain-fall, inches.
1	30.346	60.0	69.0	55.5	....
2	30.382	63.7	61.0	44.0	....
3	30.282	60.5	68.8	49.8	....
4	30.222	66.3	76.5	58.2	....
5	30.161	70.3	78.5	52.2	....
6	30.161	71.8	79.3	64.0	.04
7	30 108	71.4	76.4	65.6	....
8	30 041	71.8	79.0	65.6	....
9	29.961	73.0	80.9	64.8	....
10	29.955	75.7	81.0	67.6	....
11	30.010	71.2	80.3	64.5	2.42
12	30.272	62.7	70.0	51 7	.20
13	30.163	53.2	61.0	42.5	....
14	30.130	58.5	66.0	50.8	....
15	30.365	49.5	57.5	47.5	....
16	30.494	44.3	51.7	36.8	....
17	30.342	51.7	59.5	37.4	....
18	30.202	59.3	66.7	52.3	....
19	30.099	63.5	69.6	54.0	....
20	30.002	68.5	74.4	60.0	.04
21	29.962	73.8	78.5	66.6	.11
22	29.975	72.3	80.2	62.4	.84
23	30.010	67.0	70.2	62.3	69
24	30.006	70.3	77.2	62.9	....
25	29.915	71.2	76.5	66.5	1.20
26	30.057	67.3	72.7	61.5	.82
27	30.248	55.5	62.0	49.8	....
28	30.342	56.7	63.8	44.0	....
29	30.363	55.8	62.0	48.4	....
30	30.229	58.5	66.0	48.5	....
31					....
Sums	.....	....	....	....	6.36
Means	30.160	63.5	70.5	5.56	....

GENERAL ITEMS.

Highest Barometer, 30.550. 16th.
Lowest Barometer, 29.874. 25th.
Monthly Range of Barometer, 00.676.
Highest Temperature, 81.0. 10th.
Lowest Temperature, 36.8. 16th
Greatest daily range of Temper't., 22.1.
Least daily range of Temperature, 7.9.
Mean daily range of Temperature, 15.0.
Mean Daily Dew-point, 51.7
Mean Daily Relative Humidity, 68.7.
Prevailing Direction of Wind, N.
Total Movement of Wind, 5974 Miles.
Highest Velocity of Wind and Direction, 26 Miles, N.E.
No. of foggy days, —.
No. of clear days, 10.
No. of fair days, 15.
No. of cloudy days, 5.
No. of days on which rain fell, 10.

COMPARATIVE TEMPERATURE.

1873	61.2	1879	64.9
1874	66.3	1880	56.4
1875	65.6	1881	61.2
1876	59.2	1882	62.8
1877	53.3	1883	63.5
1878	51.2		

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	5.95	1879	3.79
1874	1.12	1880	3.04
1875	6.79	1881	7.24
1876	4.35	1882	1.98
1877	6.58	1883	6.36
1878	7.78		

M. HERMAN, *Signal Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM NOVEMBER 25TH, 1883, TO DECEMBER 29TH, 1883, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia	Total Mortality.
December 1	0	8	25	5	4	147
December 8	0	6	16	3	10	141
December 15	0	8	19	4	17	145
December 22	0	9	12	5	10	137
December 29	0	12	16	2	7	150
Total	0	43	88	19	48	720

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ORGINAL PAPERS.

The Use of Atropine in Determining Glasses and the Influence of the Vaso Motor System on the Accommodation of the Eye.

By WILLIAM C. AYRES, M. D.

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In the *New York Medical Journal*, etc., I published an article some time ago on the physiology of accommodation, in which I referred to some peculiarities of the action of atropia on the accommodation of the eye. Since that time, I have met with a certain number of cases in my practice, which, taken together with the conditions there described, seem to illustrate so well the influence of the sympathetic system on the eye, that they are perhaps interesting enough to record together. In the article just referred to I made mention of the well-known fact that, if we put atropia or homatropia into an eye, and determine its refraction under mydriasis, we sometimes fail to hit the glass which will best suit the eye after the effects of the mydriatic have passed off.

We all know, however, that in determining a glass for a hyperope, it is necessary for him to relax his accom-

modation, or the glass selected will not suit him perfectly. Therefore, it has been the custom for ophthalmologists to put homatropia into the eye so as to paralyze the muscle of accommodation and then proceed to the examination.

This was indeed a happy thought with its originator. We sometimes find, however, that after we have done all this, that the patient will come back and say that his glasses do not suit. This circumstance led me to institute a certain series of experiments which I desire to record, and then compare them with certain other conditions which I have found in congestion of the *uveal tract*.

Atropine has a peculiar action on the eye in that it dilates the pupil to a very great degree—a condition which could not be brought about by any influence on the third nerve alone. We know however that it paralyzes* the ciliary muscles, but a suspension of all action of the third nerve never causes a dilatation of the pupil except to a moderate extent. This we can easily observe in a paralysis of the oculo-motor nerve from various conditions of disease.

If we put atropine into such a diseased eye we find that the pupil will dilate very much wider than a paralysis of the nerve has been able to bring about. And from other considerations we can state that atropine has a double action; one in paralyzing the third nerve, and the other in irritating the sympathetic.

A nice experiment to show this double action is to remove the anterior part of the skull of a rabbit and gently push back the brain (keeping the exposed brain moist with warm water) until we find the third nerve in the neighbor-

*I use the term paralyze from force of habit, and from the circumstance that it occurs so often in this connection in ophthalmic literature. I cannot, however, bring myself to agree with those physiologists who state that atropia can have an immediate action of paralysis on any part of the nervous system for various reasons. What we know is simply that atropia renders the ciliary muscles incapable of action, but, for my part, I would a great deal rather consider that this incapacity was the result of a rigidity of the uveal tract brought about by energetic contraction of the walls of the blood-vessels of its extremely vascular tissue. Atropia deceases the amount of blood in a tissue as the glands, etc., and thereby diminishes secretions. It renders the skin red as does applications of faradisation; but not on account of any paralysis of the muscular coats of the walls of the blood-vessels of the skin. The redness of the skin is more probably due to an indirect change which the drug produces in the circulation in the lymphatics, and the skin becomes red because of the absense of yellow lymph. But since I do not wish to cover too much space by this paper, I reserve the consideration of this part of our subject for a future contribution.

hood of the sella turcica—cut the nerve and after waiting until all irritation from cutting has subsided, observe the size of the pupil. It will be dilated to a moderate extent. This extent I have called D1. If we put atropine into such an eye the pupil dilates much wider, and this I have called D2. And now if we lay bare the sympaticus in the neck—cut it, and irritate the cut end nearer the head—the pupil will dilate still further. This condition I have called D3.

All of these facts have been more or less known for a long time, but not so with what is yet to be described.

But before going further, we may observe that the dual action of atropine is quite evident from the experiment just described, and also that this dual action of the drug is enough to account for the fact that we do not determine the real refraction of the eye under atropine in testing for glasses, but that of a kind of objective accommodation of the dioptric system caused by the state of contraction of the muscles in the walls of the blood vessels depending upon an irritation of the sympathetic system.

We have another experiment to show that there is quite a difference in the refraction of an eye under a simple relaxation of the muscles of accommodation, and an energetic contraction of the vessels of the uveal tract. If we cut the third nerve, as above suggested, and then determine the refractive condition of the dioptric system, we find the true condition of refraction of the eye, which will of course depend upon nothing but the absolute power of the refractive media and the length of the optical axis.

This must of course be done with the ophthalmoscope, but the determination is one which requires but little training with that instrument. If now we put atropine into the eye and determine the refractive condition, or rather the glass which would suit the eye under these circumstances, we will find that the two results do not agree. This, therefore, demonstrates that the vaso-motor system has quite an influence, and the amount of such influence will, of course, be the difference of refraction without atropine and with

it, the third nerve being cut in both cases. This difference I call the amount of *objective accommodation;* whereas, the accommodation caused by the action of the muscle controlled by the ciliary system is the *subjective accommodation.*

We therefore see that when we arrive at the condition of the dioptric system by examination under atropine, we do not determine the true refraction of the eye, which is an absolute thing, but a condition in which we have the amount of our *objective accommodation* combined with the refraction, which would surely lead us to error in many cases.

So much for the first part, or the effect which the uveal tract has on the condition of refraction when the blood vessels are contracted by an irritation of the sympathetic system.*

If the above condition of ultimate *hyperopia* be present under such circumstances of depletion, we would naturally expect to find *myopia* in *congestion* of the uveal tract—which is, indeed, the fact, as will be seen in the following:

Case.—An English lady æt. 35 years consulted me on account of a curious condition of her eyes, wishing to find some kind of a glass which would be of service to her under certain conditions. She said that at her monthly periods she became near-sighted, and consequently had quite an amount of pain in her eyes, and wanted a glass which she could wear while her physiological hæmorrhage lasted. She said she was perfectly healthy and *regular*, and looked upon her misfortune simply as a penalty she had to pay for being a woman.

I examined her eyes and found that they were perfectly normal in every respect—not even the slightest congestion; and a condition of refraction of rigid emmetropia, both with glasses and with the ophthalmoscope.

She said she knew that her eyes were all right; "between times," but she wanted a pair of glasses that

* The foregoing may not be clear, and I would refer the reader to the journal already mentioned.

would enable her to bridge over the period of her menstruation with comfort.

I told her it would be impossible for me to prescribe for her under such circumstances and requested her to return when her eyes were in one of their uncomfortable paroxysms.

She did so about two weeks later. I then examined her eyes and their condition was in striking contrast to that at the time of my former examination.

There was congestion of the iris so as to produce quite a high degree of myosis; further, a congestion of the optic nerve and retina with a consequent photophobia. She had temporay obscurations of the whole field of vision, as we often find in such conditions and was miopic to the extent of about one and one-half dioptries.

On questioning her further, she declared that she had been so effected since her first delivery, which was about eight years before: and every menstrual period had brought with it a like condition. I naturally concluded that the eyes were not to be held responsible for such freaks and considered that their grievances were the result of a reflex action from her uterus. I therefore advised her to have herself examined, and for this purpose I called in another physician in consultation. We found that she had a chronic parametretis and chronic inflammation of the whole uterus.

I told her that no amount of eye treatment would be of much service to her, until she had the cause of the trouble removed. She then consented to go under treatment and returned in about a year to thank me as she said for having given her the advice.

The connection between the eyes and the uterus will fully explain the relation of the one to the other when we remember how closely the sinuses of the brain are related to the vertebral veins, the plexus pampiniformis, and the general venous circulation of the genitine organs. It is somewhat strange that the eyes should be more affected under such circumstances than other parts equally intimate, but if we ask the question why it is the case, we ap-

proach one of the great peculiarities of the body, since no physiologist can tell when an irritation is started in one part what other organs are to be affected also. Nor, indeed, whether any other organ will be certainly affected or not. However, another woman consulted me with such a peculiar condition of her eyes that I also had her uterus examined—not her uterus exactly, for she did not have any.

We found that she had no vagina, but said that she had menstruated twice in her life, which, however, I did not believe. I sent her to Prof. Polk, in New York, being at the time in that city myself. He made a thorough examination and found a floating tumor in the region of the left groin. It was painful, and considering it a floating kidney determined to remove it. He did so, and found it a combination of a uterus and a kidney.

The patient got on nicely for some time, but later, began to have signs of uremic poisoning and died on the 13th day. A post mortem showed that she had had but the one kidney, and death was naturally to be expected. Prof. Polk has written a long and interesting article on the case which he has published elsewhere. I refer to it simply as an addendum to our first case to show that such conditions also affect the eyes and, indeed, in the same general manner that our parametritis did, only to a much greater extent.

Moren has published an article of about sixty pages in the Archives of Ophthalmology on the relation of uterine to eye diseases, so that we have no lack of good authority for the facts. They however lend interest to us as to the subject matter of our present study, since they show that the vascular supply of the eye can be influenced so easily and that these abnormal variations may affect accommodation.

To conclude, we may remark that when we consider that a simple instillation of atropia causes a profound alteration in the vessels of the uveal tract, and also remember the intimate connection which the adventitia of these vessels

has with the stroma of the choroid in this locality. I do not think that we could possibly avoid concluding that the condition of vascular rigidity or laxity must have a very decided influence on the working of the ciliary system and therefore indirectly on the convexity of the lens.

At any rate we can certainly state that the action of irritation is sufficient to account for the fact that glasses which are selected under atropine are sometimes not correct from the influence of the objective accommodation which it produces. And again, the condition of myopia, which we find in long and continued congestion of the same vascular system, can also be accounted for by the effect which the uveal tract has on the accommodation of the eye.

The reason why the uveal tract should have such an influence on the convexity of the anterior surface of the lens (and consequently on accommodation) is ready at hand, when we remember the anatomy of the parts. Of course, the bulging of this surface of the lens is caused by the contraction of the ciliary muscle and a consequent relaxation of the *ligamentum suspensorium lentis*. Now, let us remember that when the ciliary muscle has contracted it has pulled forward the whole choroid, on account of its intimate attachment with it. When the ciliary muscle relaxes, however, it cannot push the choroid back into its place, since motions are not produced in the body by pushing forces, but by pulling forces of either muscles or elastic tissue. Again, since there are no muscles in the choroid to exert such a contraction, it must be brought about by the elastic connective tissue, which is in fact present in abundance. We may then consider that this elastic tissue is directly dependent upon its unrestrained activity, in working the eye to its best advantage.

The accommodation of the eye mast necessarily be presided over by an exceedingly delicate apparatus, since from the law of *conjugate foci*, of both simple and combined optical structures, every point in front of the system requires a separate and distinct accommodation of the whole apparatus in order to place the image of that point in a

certain locality, and since, in the case of the eye, the position of the screne for the image (the retina) cannot be changed, the correction must be brought about by a modification in the refractive power of the whole system, or some part of it. This is of course accomplished by the accommodative apparatus. Therefore, the apparatus must be a delicate one, and it is no wonder that in a derangement of any part of it, we find a serious impediment to its working as a whole. If the choroid is handicapped by any excessive condition of engorgement on account of congestion, or depletion by virtue of sympethetic irritation, the whole accommodative apparatus is rendered unfit for niceties of adjustment. Consequently, when we put atropia or homatropia into our eye for the purpose of relaxing the accommodation, in order to be able to determine the normal condition of refraction, we sometimes fall short of the mark, since the action of the drug brings about an abnormal condition, which, in some cases, is quite as bad or worse for our purpose, than an inability on the part of the patient to fully relax his accommodation at will.

Surgery of a Cyclone.

By Luther Sexton, M. D., Wesson, Miss.

I am not sure that the above caption is exactly correct, but some cases of such a peculiar type occurred in the late cyclone that swept over Wesson and Beauregard, that I think the title of the article admissible. Before entering directly upon the surgery of the cyclone, a few words on the meteorological phenomena which preceded it might prove of interest to the profession. For several days previous to the 22d April, we had a brisk breeze from the south-western direction, which in the evening seemed to meet a cold breeze from the north-west. Every morning this phenomenon was noticeable for one week previous to the cyclone. On the morning of the 22d of April, the same north-west wind was blowing, which seemed to meet at the equator, producing calms, that at times was almost

oppressive. Cold currents of wind would occasionally pass, causing condensation and consequent showers during the morning. This condition of affairs lasted till about one o'clock on the morning of the 22nd, when the elements began an ebullition resembling one vast chaldron, in which all the varieties of clouds seemed to be in one grand commotion. This increased until about two o'clock, when they could be seen to pass each other in opposite directions. There where two distinct cyclones on the 22nd. About twelve o'clock a storm-center seemed to form about three miles west of Beauregard, and before it had passed over the distance of five miles the wind had reached such a velocity that nothing could withstand its force. So great was its velocity that it demolished the residence of Mrs. Foles, killing five of the family, and twisting from the ground a large oak stump that stood under the house. It was the "Upper Cyclone" that blew away the Copiah church, fracturing the arm of the minister, and seriously injuring several of the congregation. The apprehension and the dread of this first freak of nature had scarcely abated, when another awful cloud loomed up in the south-west, and the distant rumbling of gathering storm could be heard. Darkness increased in intensity until it almost equaled Egyptian blackness, and this darkness was illumined incesantly by the quivering glare of the lightning. About three o'clock this cloud struck the western portion of Wesson, utterly demolishing twenty houses, burying their inmates under their ruins. About one mile from Wesson, the same terrible wind passed over the town of Beauregard (population about 1000), and swept it out of existence. Every thing succumbed to the fury of the cyclone, and the debris of houses and their contents were scattered in indiscribable confusion through the air.

Can we account for the ravages of the cyclone by the usual explanations of the texts? As a scientific profession, and as investigators, it behooves us to inquire into the nature of the atmospheric phenomena, which occur so frequently in the south and west, and in looking up the subject I must

confess that I have found no satisfactory explanation of results. I observed during the late tornado, for instance, that the force required to drive a 4 x 6 scantling through a tree one foot in diameter (specimen at *Times-Democrat* office), has been attributed simply to the velocity of the wind. Now, this is out of all reason, for the swiftest wind (violent hurricanes) only travels at the rate of 100 miles per hour, with only forty-nine thousand two hundred lbs. pressure to the square foot. This amount of pressure to the square foot could not force a plank 1 x 12 (5 feet through) through a young oak six inches in diameter (specimen at Smithsonian Institute, Washington, D. C.). In fact, this could not be accomplished by any artificial means, it matters not what amount of pressure could be brought to bear upon the plank.

From results which came under my observation, I think electricity plays a more important part in cyclones than is usually accorded to it. We know that all clouds, and even the air, are more or less charged with electricity. In the recondensation of the aqueous vapor, vast quantities of electricity are generated: heat produces electricity. In fact, heat, light and electricity are correlative terms: also, chemical changes going on in the air, the friction of clouds and different strata coming in contact, all produce electricity, and each and all of these conditions existed during and just before the late storm. Now it seems much more probable that the exhibitions of force, manifested by the late cyclone, should be a result of electricity, which, according to Wheatstone's experiment, travels at the rate of 288,000 miles per second rather than to wind, which is known to travel only about 100 miles per hour. Another cause for attributing it to electricity is that, all along the course of the cyclone, trees could be found scorched and dying, solder upon tin cups and roofs was melted, wires and pieces of iron bent and distorted. Some patients shocked to death, without sufficient bruises to justify a fatal termination. All these results, not attributable to the wind, together with the incessant flashes of lightning,

the smothering condition of the atmosphere, and the hot flashes of passing currents, which I experienced, forces me to the conclusion that electricity, more than the wind, was the destructive agent in the Beauregard cyclone.

The condensation and rarification of the atmosphere was considerably increased by the tall range of pine trees and undulating surface of the country over which it passed. Blinding sheets of rain poured for hours after the storm had ceased and, as usual, the day after the storm was as calm and serene as a balmy spring morning. The usual law of a cyclone whirl being against the hands of a watch was true in this case, and the tops of trees on different sides of the storm-belt were pointing towards each other. This was the twelfth of a series of cyclones, that has visited this section during the last fifteen years.

We come now to the surgical portion of our paper. There were 266 wounded :75 died (including those killed outright); 50 fractures, 10 dislocations, 15 cases of erysipelas, 2 of pyæmia, 2 of gangrene. It will be seen from this compilation of cases that a considerable field was open for surgical skill and treatment. Conservative surgery was the rule pursued in every particular case, and from the vast chaos of suffering, bleeding, mangled humanity that we excavated from the fallen wreck of prostrated houses, to report only one amputation (made a rapid recovery) and one case of trepanning, 15 cases of erysipelas, and two each of gangrene and pyæmia, certainly indicates that our surgery was conservative indeed. In my whole experience, strange to say, I only had to apply two ligatures. All or nearly all the wounds were of the lacerated variety, and had no tendency whatever to hemorrhage. As erysipelas is a sequel of any accident, which throws a number of wounded subjects together, in this case we found no exception to the rule. It sprang up like a mushroom at night. Being a specific disease with a specific course, did it originate here or was it conveyed here by some physician tending cases of similar character elsewhere? The etiology of isolated cases of erysipelas, typhoid fever

and kindred diseases, is a great mystery and an unexplainable fact in the ordinary way by our country physicians. There being no connection with other cases, we attributed it to the sudden atmospheric changes, the debilitated condition of many of the patients and the want of proper cleanliness.

But to come from general to more particular cases would be probably of more interest to the readers of the JOURNAL. I will first mention some wounds, unique in their character, at least different from any I have ever seen described in our text books.

Case 1.—W. S., æt., 4 years, had a lacerated wound of the scalp just above the sagittal suture. The little fellow was first seen by two physicians on the 23d, who dressed the wounds with the usual carbolized dressing. On the 24th I saw him with Dr. Rowan, and in cleansing the wounds, found a piece of pine splinter driven into the skull between the two parietal bones. It required considerable force to extract it, and on being withdrawn a jet of blood was thrown several feet into the air, owing to the coagulated state of the longitudinal sinus. We were somewhat puzzled to know what to do, but after a considerable portion of blood had escaped, we closed the opening with carbolized lint and applied a compress and bandage. Two days afterwards, when it was removed, the opening was found to be filled with a firm clot.

Case 2.—Mrs. D., æt. 28, has a picket 3 feet long driven through the right leg, fastening the right anterior crest of the tibia, passing through the interosseous space and coming out one foot on the other side. It seemed incredible that this could have happened without fracturing the bones of the leg, or wounding the anterior and posterior tibial arteries. Convalescence in this case was very protracted.

Case 3.—Mr. H. had a lacerated wound through the pectoralis major muscle, just over the heart, from which were extracted half dozen splinters, seemingly almost

in contact with the pericardium. This case made a speedy recovery.

Case 4.—D. W. had a lacerated wound from the anterior portion of the frontal bones, back across the parietal and occipital bones, 8 inches in length. The scalp was torn up from the cranium for several inches, the parts were brought together by suture and adhesive straps, after the adjacent parts had been shaved clean. The sutures seemed to create some inflammation, as they were removed and the parts were kept well approximated by the adhesive plasters till union was complete without much suppuration. The wound united in its entirety in two weeks, though the ear on the wounded side is about one inch lower than the one on the opposite side.

Case 5.—Mrs. A., æt. 32, mother of four children, in the sixth month of gestation when the storm occurred. Two of her children were killed, she had her left arm broken, and a lacerated wound eight inches long just across the abdomen. She was unconscious for about ten hours, but recovered in a remarkably short time from the injury and the fracture. She never had any pains or symptoms of abortion, and was delivered of a healthy child three months afterwards.

Case 6.—A negro woman was struck on the head with a flying missile; produced a compound fracture, with depression of the piece of bone, which was entirely detached. In order to remove this, the opening had to be enlarged by the trephine, when a wedged-shape piece of bone was raised off the brain. In this case either the injury to the brain was already too great, or the shock excessive, and it resulted in her death two days after the operation,

Case 7.—I would like to call the attention of the profession to ten cases, which occurred under my immediate charge, and which are so similar in character that they can be described under the same heading—concussion of the brain. The cases referred to were found immediately after the cyclone, some with marks of injury about the head,

others with no signs of external injury. They were unconscious, with full pulses, pupils contracted most of the time, nausea in some. No tendency to void the urine or evacuate the bowels; no particular coldness of the surface; no perspiration; breathing in one case as low as eight per minute. Eight out of ten cases recovered nnder the ordinary treatment for concussion, viz.: Removal of all compressing clothing and free ventilation, free purgings, smelling salts, and stimulants, if necessary. Reaction in these cases was very slow, and in those cases where no external violence could be found, it occurred to me that the shock might be due to some electrical influence, as the air was so charged with electricity that the solder on the tops of roofs was melted as before referred to.

Before concluding this article, I would like to call the attention of the profession to some practical points which may prove of interest to some and benefit to others. And the one that suggests itself to my mind is the invaluable aid we derive from chloroform in the manipulation of fractures, and especially in reducing dislocations (these operations are often performed without the aid of any anæsthetic).

We used it in nearly every case, and I feel justified in saying to great advantage, as the shock and pain necessary in a careful examination and manipulation would much more than counter-balance the risk of administering chloroform.

A few minutes before giving the chloroform we usually either administered a hypodermic of ¼ gr. morphine, or gave a somewhat larger dose by the mouth. After the morphine had produced some narcosis, it often only required about one drachm of chloroform to produce complete anæsthesia. The morphine, I think, also prevented nausea, usually so common after chloroform.

Instead of the carbolized water and oil dressing to offensive and sloughing wounds, we used the fluid extract of calendula (marigold), just enough to color the water considerably, and found it to act much better in some cases

than the time-honored carbolized water. It removed all odor from rooms where the acid entirely failed, and in some way seemed to promote the healing and granulation in a remarkable degree.

The medicinal properties of this plant has been mentioned several years ago by Dr. Sivesy, but from some cause it has never been given a trial by most of our physicians.

Another very valuable addition to the usual carbolized oil dressing was about five drops of oil of eucalyptol to the ounce of carbolized oil, which seemed to increase the healing properties of the oil—at least it removed all the disagreeable odor of this agent, which becomes so disgusting to the patient by its continuous use.

All our cases of erysipelas recovered, though we had to contend with some of the *severest cases* of this complication in the head and face.

We usually began the treatment with a purgative dose of calomel, podophyllum and soda, followed by salts, or oil, if necessary. Then, twenty drop doses every four hours, of tincture of iron, with tonic doses of quinine. Evaporating lotion of alcohol, chloride of sodium and glycerine to the part when feverish or inflamed. Nourishment kept up constantly.

In nearly all our cases of fracture we applied immovable dressings, as our patients were scattered over the town and surrounding country, so that it was impossible to see them very often.

In most of the cases we used the gypsum dressing: we used it with a great deal of satisfaction in all fractures, but the remarkable success we had *in* fractures of the femur deserves special mention, Out of the sixteen cases only four cases had any perceptible shortening. In two cases, where the fracture was in the upper third of the femur, we extended the bandage up around the pelvis and body, which in every case insured the position of the limb, and the amount of security we felt for our patient while away was additional pay for our trouble.

In concluding this article I feel it incumbent upon me to allude to our visiting physicians for their self-sacrificing dispositions in leaving their home and business to attend to the cries of the wounded and minister to the wants of the dying.

They came like angel messengers, with healing on their wings; and some from distant States were prompted to give us the benefit of their time, labor and experience, exemplifying the characteristic liberality of the profession. Their labors were performed without any expectations of reward, further than a conscience that bespeaks a duty done. Their names are too numerous to mention, but they will be retained in the hearts of our suffering people so long as time shall last.

Foreign Body in the Vagina of a Girl Three Years Old—Two and a Half Years without Pain—Formation of Phosphatic Calculus from the Vaginal Secretions—Supervention of the Prolapsus of Anus, with Great Suffering—Removal of Foreign Body without Cure.

By D. T. Smith, M. D., Gretna, La.

About the first of April, 1883, I was called to see Mary S., mulatto, age thirteen years and ten months. I was informed that she had swallowed a china doll-head about the month of June, 1880, as evidenced by her statement to the mother at the time. No ill effects whatever followed until November, 1882, when she began to be troubled with loose bowels and straining. In a short time the tenesmus began to be aggravated by pain in passing water, and the pain became intense. As many as thirty or forty times a day she would commence straining, either with the desire of evacuating the bowels or the bladder, when, by a series of spasmodic jerks, the bowel would be protruded, hypertrophied and swollen to such a degree that it looked more like that of a horse in size than that of an emaciated girl. She had been carried to different physicians, who treated her without examination and without effect.

On my first visit the mother informed me that the girl had passed a piece of some kind of substance that looked like stone, but was easily crushed between the fingers. On introducing my finger into the vagina I felt just within the vulva a hard substance, which, owing to the torturing pain produced—not having chloroform with me at the time—I could examine only cursorily, but, in connection with the history, I supposed to be a phosphatic calculus passing by ulceration from the bladder.

Early in June, assisted by Dr. J. S. Ford, I proceeded to chloroform the patient and remove the foreign body. While partly under the influence of chloroform, a closer examination led to the suggestion that the puzzling substance was not what I had supposed, but a foreign body introduced by the girl herself into the vagina.

Thereupon, and while partly under the influence of the anæsthetic, the girl confessed that it was the head and shoulders of a porcelain doll, which she had introduced into the vagina, instead of swallowing, as she had stated to her mother at the time of the act.

Failing to remove it with the finger, and two or three pairs of forceps, which were tried in turn, recourse was had to a pair of tooth forceps, with which it was removed without laceration of the parts; considerable water escaping during the manipulations. It was found to be as the girl had represented: A porcelain doll-head, with shoulders forming a bust, weighing six and a half drams and measuring about one inch in its greatest breadth. It had been passed in head foremost, and once within the vulva the shoulders had, valve-like, closed the aperture, and the secretions of the vaginal mucous membrane had been retained. The various depressions of the bust were more or less filled with phosphatic deposit, and after its removal there came away an oval phosphatic calculus, weighing exactly twenty grains.

The removal of the foreign body has given marked relief from pain, especially at night, as sleep, which previously could be had only by snatches, is now almost un-

disturbed. During the day, however, there still occur from ten to fifteen paroxyms of straining, with protrusion of a mass as large as the fist, from the anus.

Having had recently an opportunity to examine, under chloroform, I found a cicatricial band circling the vagina, just within the vulva, and longitudinal bands along the recto-vaginal septum, but entire absence of fistula. The vagina within is still dilated, undoubtedly from the retention of its own secretions, and to such an extent that it is with difficulty that the wall is reached with the finger in the direction of the left iliac fossa, where it seems to be pouched and adherent. No persistent abrasion of surface could be discovered, which, taken together with the fact that the paroxyms continue only at night, leads me to believe that they are now produced as a matter of habit on the part of the nerves and muscles.

The girl and her mother are both stupid and stubborn, and I have not been able to enforce any satisfactory mechanical treatment, the only thing which seems to me to promise good results.

Nitro-Glycerine and the Chloride of Gold and Sodium in the Treatment of Albuminuria.

Read before the Philadelphia County Medical Society, December 19, 1883.

By Roberts Bartholow, M. D., LL. D.

Hitherto the therapeutics of renal diseases have not advanced in the same ratio as our knowledge of their pathology. It can not be said now that a cure has been found, but that two remedies of real value are available. My contribution to this symposium, on albuminuria, consists in an attempt to define the place which these remedies should occupy in a curative scheme. To do this, in even the briefest way, I must clear the ground with a preliminary statement.

I start with the proposition that those renal lesions united by the common symptom—albuminuria—are of neural origin. There is a kinship between diabetes and Bright's disease. One of these is sometimes substituted for the other: and during the course of some rare cases of exophthalmic goitre this substitution occurs. Irritation of a certain part of the floor of the fourth ventricle is followed by glycosuria: of another part by albuminuria. The recent observations of Da Costa and Longstreth prove that a relation exists, whether casual or sequential, between certain renal lesions and degenerative changes in some ganglia of the abdominal sympathetic. The hypertrophy of the muscular coat of the arterioles, discovered by Dr. George Johnson, and the increased tension of the vascular system due to an irritation of the vaso-motor centre in the medulla, both present in the chronic forms of albuminuria, are further evidences of the agency of the nervous system. It was, more especially, the condition of elevated tension of the vessels which led to the use of nitro-glycerine. This remedy before all else reduces the vascular tension. It also lessens the work of the heart, by removing the inhibition exercised by the pneumogastric nerve.

This remedy appears to have been first used by Mr. Robson, an English surgeon, in cases of albuminuria, and by him employed, because the high tension of the vascular system has proved to be so pronounced an element in the more chronic cases. I have, myself, seen some remarkable instances of relief- indeed of cure—effected by it. If time were now available, I could give some striking examples. In cases of mitral disease, accompanied by albuminuria, it also renders the highest service—for the diminished peripheral tension lessens the work to be done by the heart, and assists in the more equal distribution of the blood. The effect of this in relieving the renal congestion is obvious.

Chloride of gold and sodium has quite another function,

It has long been known that this remedy has a special direction to the genito-urinary apparatus. The ovarian and uterine organs in the female, the testes and vesiculæ seminales in the male, are stimulated by it, and the kidneys, by means of which it is eliminated, and in which it tends to accumulate, are decidedly affected by it in function and structure. In common with some other agents of the class to which gold belongs—for example, corrosive sublimate—the chloride acts on connective tissue and checks its over-production, or its hyperplasia. It would be quite impossible in this note to go over the evidence on these points, and hence I must ask your assent to these statements. They have been accepted as true of gold, from the days of the alchemists and iatro-chemists, as any one may ascertain from that curious collection of mediæval medical learning—the Anatomy of Melancholy. It has happened, strangely enough, that Hahnemann and his followers have profited by this knowledge, and have used gold preparations—especially *aurum potabile*—in the treatment of renal diseases with success.

How and when are these remedies to be used?

Nitroglycerine is now administered, as all present know, in the form of centesimal solution—1 minim of the pure drug to 100 minims of alcohol. The initial dose of this one per cent. solution is one minim, which should be increased until the very characteristic physiological effects are produced. The susceptibility to the action of nitroglycerine varies greatly, and hence the dose cannot be stated in advance. It is necessary to produce some obvious effect. To maintain the same level of action, a slight increase in the dose may be required from time to time. As the effect is not lasting, the interval between the doses should not exceed three or four hours.

The administration of nitroglycerine should begin in acute cases immediately after the subsidence of the acute symptoms. It is indicated in chronic cases at all periods, but is more especially useful, if given before hypertrophy of the muscular layer of the arterioles has taken place.

When it acts favorably, the amount of albumen in the urine steadily diminishes. The mechanism of its action consists in the lowering of the pressure in the renal vessels. How far any curative effect proceeds from action of this remedy on the sympathetic system, remains to be determined.

Chloride of gold and sodium is indicated in the subacute and chronic cases, especially the latter. The earlier it is given the better, if structural changes are to be prevented or arrested. The good effects to be expected from it will depend necessarily on the extent of the damage already inflicted on the kidneys.

The usual dose is 1-20 grain, twice a day, but this may be much increased, if necessary. At the outset, 1-10 grain may be given; in a week the dose should be lowered to 1-15 grain, and after a month the regular dose of 1-20 grain should be steadily pursued, with occasional intermissions. Indigestion, gastralnia and colic pains, nausea or diarrhœa, are occasionally caused by it; and if so, the quantity administered must be reduced. It is usually borne without any discomfort, but after prolonged administration, salivation, weakness, emaciation, trembling and other nervous phenomena may occur possibly. Such effects, however, are wanting in my experience.

The treatment of albuminuria by nitroglycerine and the chloride of gold and sodium, does not necessitate the exclusion of other means—hygienic, climatic, or dietetic. These remedies should, however, be given uncombined at different hours, and their actions should not be hindered or obscured by the effects of other agents given with like purpose. To this general statement there may be two exceptions; with nitroglycerine, amyl nitrite or sodium nitrite may be given; with the gold and sodium chloride, corrosive sublimate may be combined. If doubts may be felt in regard to the propriety of depending on the utility of these remedies, they need not be long experienced, for if no good effects are observed in two weeks, they may then be discontinued.

SELECTED ARTICLE.

The Hygiene of the Sexual Functions.*

A Lecture, delivered in the regular course at Jefferson Medical College, November 7th, 1883.

By Theophilus Parvin, A.M., M.D.,

Professor of Obstetrics and Diseases of Women and Children.

Having followed the spermatozöid in its progress towards the ovary, having seen how the head of the former entering the ovule becomes the male pronucleus, and then goes to meet the female pronucleus—here as elsewhere the great law of the male seeking the female illustrated, and their union the beginning of the new being—I wish to speak upon another subject before giving the development of the impregnated ovule. That subject may be called the hygiene of the sexual functions.

Probably it may be said with truth that there is nothing in the human economy of which men and women are more ignorant than they are of their sexual organs, and of the proper care as to their important functions. Such ignorance is not bliss, but is a fountain of unhappiness, of disease, of crime and woe, of sin and sorrow. It is important that you should be instructed in these matters: that you are to be the guardians of human life from the cradle to the coffin, you are to have the care of human health, and who can do so much for the prevention of human suffering and for the promotion of human happiness, may be able to be the teachers of men and of women. It will be necessary to speak in plain words, calling a spade a spade, instead of an agricultural implement: and I believe that no one who hears me will, using the language of Jeremy Taylor, be possessed with a spirit of uncleanness which would turn the most prudent and chaste discourses into dirty and filthy apprehensions. Let the pictures of human debasement that history gives furnish no fuel for passion, but rather startle every virtuous impulse, so that you may rise to higher planes of morality, to greater purity of heart, of influence and of action.

*It is just to state that this lecture was prepared without a thought of its publication; much of it was delivered extemporaneously; and it is only because of the request of the Editor of the College and Clinical Record, and the strongly expressed desire of many of the students of Jefferson College, that it now appears in print. The author believed, and still believes, that some plain words upon the hygiene of sexual functions were needed, especially in the interest of woman's health; and so far as he was able he spoke them, in all honesty, frankness, and earnestness. He very well knows that there are those who will be slow to accept some of his conclusions; but all he desires is honest inquiry, and the establishment of truth, which ultimately makes alike for health, righteousness, and happiness.

Occasionally you read in your newspapers that the bride of a night, or of a few days, or of a few weeks, has gone home to her parents, and never returns to her husband; but there is a Chicago divorce concluding the history. One of the most distinguished French physicians, Bertillon, has recently said, that every year, in France, he knows of thirty to forty applications for divorce within the first year of marriage, and he has reason to believe that a majority of these are from the brutalities of the husband in the first sexual intercourse. Very often you read of some delicate woman or girl waylaid at twilight on a lonely country road, or in the outskirts of a city, outraged by some brutal ruffian, or ruffians, after which she is murdered, to conceal the crime; and there is, quite frequently, a Connecticut failure to discover the criminal or criminals. I remember, as if it were but yesterday, though half of my life has passed away since, one who was dear to me as a sister, the beauty of whose budding womanhood, and the goodness of whose heart, made her life a charm, a joy, a strength; walking along a public road in the early autumn evening, to a village almost in the shadow of this great city, she was followed by two base men, for the basest purpose: divining that purpose, her walk quickened to a run, and as if, in that moment of supreme peril, given superhuman power, she so far distanced her pursuers that she reached the first house in the village: it opened its friendly door, and she fell on the threshold a corpse, saving her virtue, losing her life!

In this city there are thousands—in this country tens of thousands—of those unhappy women, outcasts from respectable society, who live for the lust of men. Mr. Lecky, in his *History of Morals in Europe*, has graphically described the condition of "that unhappy being whose very name is a shame to speak, who counterfeits, with a cold heart, the transports of affection; scorned and insulted as the vilest of her sex, and doomed, for the most part, to disease and abject wretchedness and an early grave, she is in every age the perpetual symbol of the degradation and the sinfulness of man; she remains while creeds and civilizations rise and fall, the eternal priestess of humanity blasted for the sins of the people."

Consider how fearfully common the vice of onanism is among boys. A few carry the vice from boyhood into manhood, and become miserable wrecks; others by a

sudden revulsion of feeling, after one or two indulgences, into which they have been initiated by a school friend, free themselves from the abominable debasement: still others are rescued by the wise counsels of teacher, father, or phisician. Nor is it only, though chiefly, in the male sex that onanism is found. Within a year a lovely young lady, who had been taught in one of the best schools in our country, one in charge of a clergyman, and admirable for its home-like character, came to me, broken down as to her nervous system, and with great agony of mind confessed that at this very school she had become addicted to self-abuse; the habit, there learned from her room-mate, had been abandoned, but the memory of it made her miserable by night and by day; she bitterly reproached herself, shrunk from all society, thought that every one could read her dreadful secret, and was whispering words of scorn and contempt. Ah! what would she not give to have again the innocence of childhood, and its ignorance, too, so far as the base use of her sexual organs is concerned. Every few days your newspaper tells of a father being arrested for incest, the victim of his mad lust sometimes being but a child. Heaven pity us, when a father sacrifices the chastity of his daughter to his insane passion!

Men having sexual commerce with animals is a crime not unknown at this day. Husbands compelling their wives to have intercourse in the rectum is a fact that has come to the surface. Sometimes a worn-out sensuality seeks a new stimulus, the husband has forced his wife to receive the penis in her mouth. An instance of this kind became public in Paris a few years ago, because of the wife's appeal to her mother, who told her the next time the act was committed to bite the penis, so that the proof of the crime could be readily had, and a separation secured; she followed her mother's advice, and was divorced from a loathed and loathsome union. In this country, probably, the husband's lawyer would have had the trial postponed until the penis was healed, and thus the proof evaded. What must be force of that lust which has led a husband to have intercouse with a dying wife? Nay, more, what tremendous power, when it is satiated by intercourse with a corpse! Does the picture grow in hellish blackness? It is real; it is terribly true!

But does this world, growing hoary with years, grow worse? Is the human race degenerating, groveling more and more in the mire of sensuality? Nay, it is getting

better. Think of the famous Queen of Arragon, who, when a poor wife complained to her that her husband demanded sexual intercourse ten times in the twenty-four hours, restricted the lustful brute to six times. It is hardly possible that any empress in this century would, like Messalina, boast of having had intercourse twenty-five times in one night, changing her male companion several times during this experience, then retired from the exercise exhausted, but not satisfied. No emperor of the century would boast, as did Messalina's husband, that he had deflowered ten Sarmatian maidens, who were captives, in one night. Herodotus tells us that among the Egyptians, when a beautiful woman died, the corpse was not embalmed for three or four days, lest those who did this work would first use the body for their lust. In the time of the Roman emperors *tribadism*, that depravation of the genital sense shown in women who sought the caresses of their own sex, was common: this female debauch was generally lingual, onanism, that is, the use of the tongue applied to the sexual organs for masturbation. This loathsome vice was of Greek origin: Sappho, a Greek poetess, who lived in the island of Lesbos 600 years before Christ, vowed to sacrifice to Venus without the help of man, and young Lesbian girls followed her example; she gave her name to a particular form of poetic metre, Sapphic metre, and her name has also been given to this vice as a synonym for tribatism, Sapphism. Such conduct could not be attributed to any poetess of this age. Do you know that the famous Hippocratic oath required the physician to swear he will not seduce boys in the families he visits? How absurd to suppose that any physician of to-day would, or could be a pederast. In the time of the Roman emperors, Roman women sought solitary pleasure with the image of a human penis, called *priapus*, or *phallus*. The Greeks had their religious procession, at the head of which was borne an enormous image of the male organs of generation; the wild delirium, the mad orgies which the furious crowd exhibited upon these occasions have been admirably pictured in a recent novel translated from the German, called Aspasia. And this was in the age of Pericles!

Montaigne remarks that in times past fifty deities were assigned to sexual passion: and there have been nations, Babylon, Cyprus, and Heliopolis in Phœnicia, where, to assuage the lust of those who came to their devotion, they kept men and women in their temples for the worshipers to

lie with; and it was an act of ceremony to do this before going to prayers. How utterly impossible even to think of such custom in the churches of to-day. The Egyptian women, Montaigne further says, in their *Bacchanalia*, each carried an image of the penis, finely carved of wood, and as large as she could carry, and fastened to the neck; according to Herodotus the statue of the god had a penis nearly as large as the body itself. The modest matrons of Rome thought it an honor to offer flowers and garlands to the god Priapus, and they made the virgins, at the time of their espousals, sit upon his shameful parts.

Read Plato's *Symposium*, and see how Sodomy and pederasty are discussed, and if not approved, at least not condemned. Socrates and his disciple, Alcibiades, who each take part in this famous discussion, are said to have practised pederasty. It came to be known as the Greek vice. Philip of Macedonia, Nero, Tiberius, Cæsar, Caracalla, and many others famous in ancient history, are said to have been devotees of the Greek vice. It has been stated that Augustus was adopted by his uncle, Cæsar, because he was the docile instrument of his abominable debauches; this pliant nephew was spoken of as the husband of as many wives, as he was the wife of as many husbands.

In the article upon *Onanisme*, by Christian, *Dictionnaire Encyclopedique des Sciences Medicales*, the author states that in ancient Greece certain philosophical schools carried their contempt for woman very far, and preferred onanism to sexual intercourse. Onanism found its support, too, in certain prevalent medical theories. According to those theories, which Galen has preserved for us, the spermatic fluid was regarded as a very injurious thing, and the body ought to be freed from it soon as possible. Diogenes would relieve himself of it on the street and in the midst of a crowd. Many respectable people, contemporaries of the Cynic, imitated him, as Galen says, *non ob voluptatem, sed ut ab impedimento præservientur*. No wonder that the dirty Diogenes was a woman-hater, and that he exclaimed, when he saw a woman's body hanging on a tree, "would to Jove all the trees bore such fruits!"

In the God-inspired denunciation of the Israelites by the prophet Ezekiel, one of their crimes is making virile images of the vessels of gold and silver which belonged to sacred worship, and committing fornication with them. Death was the punishment of the Israelite, male or female,

who had sexual commerce with a beast: and the same penalty was inflicted upon a man who had intercourse with a man by the rectum. Go back still further in Jewish history. See that clamorous crowd of men, at nightfall, at the door of Lot's house, demanding that his two celestial visitors shall be given them for the gratification of their lust. In vain Lot remonstrates with these fierce Sodomites: in vain, so high did he regard his duty as a host, did he offer his virgin daughters, "bone of his bone, and flesh of his flesh," that they might upon them appease their sexual passion. To-day the gloomy Dead Sea tells of Divine wrath: tells where Sodom was: and the word sodomy perpetuates the black crime and utter baseness of the original Sodomites.

No, the world is not getting worse! The evolutionist can not believe that it is, for evolution is ever a striving after the better, an unfolding, a progress from the lowest and simplest to the highest and the most complex. The student of history is generally ready to declare, as the result of his studies—

"For I doubt not through the ages one increasing purpose runs,
And the thoughts of men are widened with the process of the suns."

Above all, he who has faith in man's Divine origin and destiny, must believe that the world grows better.

From the hurried sketch which has been given you of the sexual debasement prevailing in ancient times, it must be plain that the present is by no means as bad as the past. And yet things in this regard are not as they ought to be; countless evils come upon individuals and society because of unregulated sexual passion, and ignorance is largely responsible for this want of proper regulation. For convenience and for clearness of exposition, we may consider the subject of sexual indulgence under the three heads of unnatural, illicit, and unrestrained. By unnatural sexual indulgence is meant the gratification of passion by means other than those which nature has provided. Of course, as seen by the historical sketch which has been given, there are many ways in which this may be done: but so far as mere frequency is concerned, remarks may be limited to the single one of self-abuse, commonly called onanism, though really this term, as is readily seen from its origin, ought to be restricted to an act occurring in intercourse between male and female. As the usual method of self-abuse is by the hand, it has been called manualization.

Laying aside those rare cases where children of two years of age or even younger, or sometimes older, are taught by base nurses, in order to keep them quiet, rubbing their sexual organs, most cases of self-abuse begin in puberty. The vice is very much more frequent among boys than girls. Apart from any inherent moral difference between the sexes, there is a physiological reason for this difference: in woman, as in almost all females, passivity generally marks the sexual act: woman can abstain from venereal pleasures much more readily than man can. From my own observation I believe that self-abuse is even very rare among women and girls. For ten years I held the place of physician to a Reformatory for Women and Girls, and during that time have had under my care some fifteen hundred females: and I can sssure you that instances of self-abuse were few. And yet many of the inmates of this institution came from homes of vice, and some even before puberty had begun the lives of prostitutes. On the other hand, I think that few boys, especially if educated at boarding-schools, altogether escape the vice. Masturbation is very rarely a spontaneous act, at least I have never seen a case of the kind. The boy or girl, so far as my observation goes, has been taught the act by example, or at least has had it suggested and explained, by a worse if not an older companion. I believe that in the great majority of cases prompt expulsion, or at least a long suspension from school, ought to be the punishment of such teachers of vice.

In most cases manualization is soon abandoned, either because he who indulges in it feels it a most loathsome and disgusting act, or because he is warned by wise teacher, parent, or physician, of its injurious consequences. But others persist to their physical, mental and moral ruin. Masturbation is more injurious than sexual intercourse, because, chiefly of its more frequent performance, and because of its reaction upon the mind. The great remedies for the onanism of boys are instructions as to their nature by some other means than the reading of vile books, and the experience of vile companions: instruction from parent or teacher: occupation for the mind, and bodily exercise: simple food and personal cleanliness: last, proper control of the imagination, scrupulously avoiding all impure literature, plays or pictures, and associates who suggest erotic thoughts. Burdach remarks that lubricity oftener comes from fullness of the brain than

from fullness of the testicles. A physician's advice to a young man of seventeen, who came to him complaining of pain in his testicles demanding relief, was, "If I were your father I would make you split wood for an hour or two each day." Penelope kept back the crowd of eager suitors, and kept new love out of her heart, by working—weaving by day and unweaving at night—until at last her own Ulysses came, redeeming and revenging.

To save a boy at boarding-school from the possible contamination of a licentious room-mate, let every boy have a separate room.

Silence in regard to sex is often a darkness in which all foul creations are born. Especially does ignorance of the womanly nature, of what woman really is, give rise to dangerous errors on the part of the growing boy and of the young man. For example, the Roman woman whom the young student meets in Juvenal is not the woman of to-day. The young man who thinks woman altogether such an one as himself, in regard to sexual passion, is utterly, dangerously mistaken. If he knew her true nature, he would learn to curb, instead of too often giving loose rein to his erotic thoughts and sensual desires. It is most fortunate for female virtue that woman is not the counterpart of man. On this point I shall speak in a few minutes again, reinforcing my position by a quotation from the late Mr. Acton's admirable work upon the *Reproductive Organs*.

Suppose this adolescent or young man is annoyed by occasional nightly pollutions: does that indicate the necessity for masturbation or for illicit intercourse? By no means. How much better to follow the advice of good Jeremy Taylor: "To disprove by an after act all involuntary and natural pollutions: for, if a man delights in having suffered any natural pollution, and with pleasure remembers it, he chooses that which was in itself involuntary: and that which, being natural, was innocent, becoming voluntary, is made sinful.

Our dreams are in some measure determined by our waking thoughts, by what we see and hear and read, by what our minds have received—it may be long ago—and by that upon which our minds voluntarily dwell. Cast out from our thoughts all lascivious images and suggestions, and our dreams are less likely to have an impure, erotic character. Man or boy cannot take pitch in his bosom, and not be defiled both day and night. It is to be remembered, that,

while the genital centre of action is in the lumbar region, that of excitement is in the brain. Further, the seminal fluid is not a very expensive secretion; it is not its loss so much as the nervous excitement, the nerve-shock attending the substitute for the venereal act, or the act itself, which, either in onanism or copulation frequently indulged, breaks men down. Occasional involuntary seminal discharges occurring in sleep ought not, therefore, to be looked upon as such a serious matter.

I cannot condemn too strongly the advice of physicians who tell young men to go to houses of prostitution to relieve this secretion in a natural way. The indulgence of passion is not the way to master it; it is an easy way, an attractive way to tide over a present difficulty; but, in the long run, it proves, in many cases, the unchaining of a tiger; gives it a fierce strength, and it devours in its wrath It is easy to swim with Niagara's current, hard to strike for the shore; but he who trusts himself on its strong tide is swiftly borne to remediless ruin. Dare any young man, has he any right, to demand of the fair maiden to whom he plights his troth a virtue which he cannot give? Lo, too, disease lurks for the unwary, and a single visit to a prostitute may "touch the fount of his blood corruptedly," so that he gives to the wife whom he afterwards has, and the children he begets, a life-long malady. Nay, more, the very want of self-mastery which he has shown in this illicit indulgence may reappear in his offspring with increased power, becoming an inalienable heritage of sin and of sorrow. No man can sow this sort of wild oats without eating, and compelling those he most tenderly loves to eat, "the fruit thereof, and the dirt thereof also."

I knew an instance where the perfidy of a seducer led his victim, who fell into the depths of prostitution and disease, to visit punishment upon all young men she could allure to her embraces; indeed, afterward boasting that she had communicated syphilis to them. It was a cruel, remorseless vengeance taken upon the sex of her seducer.

Against the wisdom of those who prescribe illicit intercourse as a therapeutic measure, I place the higher wisdom of Solomon, where he refers to the foolish woman that is clamorous, inviting male visitors: "Whoso is simple, let him turn in hither; and as for him that is void of understanding, she saith to him: Stolen waters are sweet, and bread eaten in secret is pleasant. But he knoweth not

that the dead are there, and that her guests are in the depths of hell."

Luther said he could not help being a man, and that it was not in his power to live without a wife; she was more necessary for him than eating and drinking. But it has been repeatedly proved, and this by some of the most distinguished and able of men, that man can live without sexual intercourse. Sir Isaac Newton, Kant, Pascal, Beethoven and Fontenelle are illustrious examples. Michael Angelo, when urged by some of his friends to marry, replied, "Painting is a jealous mistress, and suffers no rival." Now, if these men lived all their lives without sexual indulgence, and some of them had their years wonderfully prolonged, and though they left no children to perpetuate their names, they were prolific in great works, surely the young man can wait for a few years until his passion may be legitimately gratified. Ulysses successfully passed the home of the Syrens by putting wax into the ears of his sailors, and having himself lashed to the mast. Let a man turn a deaf ear to the voice of illicit desire, and have himself firmly held by the bonds of duty, of reason and of conscience. But marriage comes, and fortunate indeed if it be a marriage of love.

> "All thoughts, all passions, all delights,
> Whatever stirs this mortal frame,
> All are but ministers of love,
> And feed his sacred flame.

This applies especially to woman: love throbs in every pulse, thrills in every nerve and fibre of her being; her life is love. She gives herself to one she truly loves. If you find out the history of poor seduced girls, those who, as so commonly said, loved not wisely but too well, you will find that in almost all cases they yielded to the solicitations in no paroxysm of sensual passion, because they loved and trusted with their whole heart: they fell because they sought not their own, but the gratification of another. I do not believe one bride in a hundred, of delicate, educated, sensitive women, accepts matrimony from any desire of sexual gratification: when she thinks of this at all, it is with shrinking, or even with horror, rather than with desire. Happy that union in which the husband understands the womanly nature. He may not always keep the illusion of first love—

> "As if the thing beloved were all a saint,
> And every place she entered were a shrine;"

"but," as Southey has said, "it must be our own fault, when it has passed away, if the realities disappoint us; they are not weary, stale, flat and unprofitable, unless we render them so. The preservation of the species is not the sole end for which love was implanted in the human heart; that end the Almighty might as easily have effected by other means: not so the development of moral nature, which is its higher purpose,

On the other hand, how many women are made wretched by the husband who thinks the highest end of marriage is copulation, and that his wife ought to be equally amorous with him.

> "He will hold thee, when his passion shall have spent its novel force,
> Something better than his dog, a little dearer than his horse."

It is a mistake to suppose that the kindness, the kiss and the loving embrace of the wife are, in general, the expression of sexual desire. The following was the exclamation, to me, of a most refined and cultivated lady, the mother of five children, and who dearly loved her husband; "How often we wives would caress our husbands if we did not know the inevitable consequences." I know that I am right as to the womanly nature, and I know that if men generally thus believed, there would be less licentiousness, purer and happier wedded life, and healthier women; for how many women are rendered miserable, both morally and physically, by the sexual excess and brutalities of husbands. Let me strengthen the position I have taken by some extracts from Mr. Acton's work, referred to a few minutes ago.

"I have taken pains to obtain and compare abundant evidence on this subject, and the result of my inquiries I may briefly epitomize as follows: I should say that the majority of women, happily for them, are not very much troubled with sexual feeling of any kind. What men are are habitually, women are only exceptionally. I admit, of course, the existence of sexual excitement, terminating even in nymphomania, a form of insanity that those accustomed to visit lunatic asylums must be fully conversant with: but, with these sad exceptions, there can be no doubt that sexual feelings in female is, in a majority of cases, in abeyance, and that it requires positive and considerable excitement to be roused at all: and even if roused, which in many instances it never can be, is very moderate compared with that of the male. Many men,

and particularly young men, form their idea of women's feelings from what they notice early in life, among loose, or at least low and vulgar women. There is always a certain number of females who, though not ostensibly prostitutes, make a kind of trade of a pretty face. They are fond of admiration; they like to attract the attention of those immediately above them. Any susceptible boy is easily led to believe, whether he is altogether overcome by the syren or not, that she, and therefore all women, must have, at least, as strong passions as himself. Such women, however, give a very false idea of the condition of female sexual feeling in general. Association with the loose women of London streets, in *casinos* and other immoral haunts, who, if they have not sexual feeling, counterfeit it so well that the novice does not suspect but that it is genuine, all seem to corroborate such an impression.

"Married men—medical men—or married women themselves, would, if appealed to, tell a different tale, and vindicate female nature from the vile aspersions cast on it by the abandoned conduct and ungoverned lusts of a few of its worst examples. There are many females who never feel any excitement whatever. Others, again, immediately after each period, do become, to a limited degrees, capable of experiencing it; but this capacity is only temporary, and will cease entirely until the next menstrual period. The best mothers, wives and managers of households, know little or nothing of sexual indulgences. Love of home, of children, of domestic duties, are the only passions they feel. As a general rule, a modest woman seldom desires any sexual gratification for herself. She submits to her husband, but only to please him; and but for the desire of maternity, would far rather be relieved from his attentions."

Having said this much in regard to the character of woman, are there to be no restraints upon lawful sexual indulgence? Philosophers, divines, legislators and physicians have thought this subject worthy their consideration. Plutarch observed that he is a bad husband who treats his wife as a man does a harlot, having pleasure as his only object. I wish also to quote to you the wise words of Taylor: "Concerning which our best rule is, that although in this, as in eating and drinking, there is an appetite to be satisfied, which cannot be done without pleasing that desire, yet, since that desire and satisfaction was intended by nature for other ends, they should never be

separate from those ends, but always be joined with all or one of these ends," with a desire for children or to avoid fornication, or to lighten and ease the cares and sadness of household affairs, or to endear each other: "but never with a purpose, either in act or desire, to separate the sensuality from those ends which hallow it."

The canon law allowed intercourse three or four times a week. Mahomed, I believe, permitted it once a week, on Friday, *Vendredi, dies veneris*. The rule given by Zoroaster was once in nine, by Solon, once in ten days. Mr. Acton has said that an indulgence once in a week or in ten days may be the rule for strong, healthy men.

But whatever rule may be followed, one should remember Ovid's *Ne quid nimis:* or Dr. Menville de Ponsan's advice, Drink, but do not get drunk.

Finally, there comes a period in human life when this pleasure must be abandoned. Cato, indeed, was a father when an octogenarian: but, on the other hand, Louis Philippe, of Orleans, died at fifty-nine in the arms of his mistress, the Duchess of Phalaris: and the Abbé Maury wrote to his friend Portal, "each time that an old man gives himself to the pleasures of love he puts a pellet of earth on his head:" or, as one would now say, "drives a nail in his coffin." "Old age," said Terrence, "is already a disease; if you give a wife to it, it will be death."

There are certain times when intercourse should not take place. It ought not to take place during menstruation, for it may then cause a urethritis in the male, and it may increase the normal monthly flow till it is a serious hemorrhage, or it may cause dangerous internal congestions, or an intra-pelvic hemorrhage.

It ought not to occur during the convalescence after an abortion, or after labor at full term, A friend in the Philadelphia legal profession has told me of his procuring a divorce within two years for a wife, on account of her husband's cruelty, and a part of that cruelty was driving the nurse out of his wife's room three days after her confinement, in order that he might have intercourse with his wife: moreover, that this husband had occupied a high social position, but lost it by his intemperate habits.

I believe, further, it would be better in many, if not in all cases, were there abstinence during pregnancy: but this topic will be considered in a subsequent part of the course.

Another topic relating to married life is the limitation or

the preventing having offspring. Injurious consequences generally follow each, for gross violation of nature's law brings punishment. In the great majority of cases it is vastly better to submit to the inevitable.

The oldest method of which we have any knowledge was that practised by Onan. It has been asserted, especially by Mayer and Devay, that if the uterus is not "refreshed and soothed by the spermatic fluid," all manner of uterine diseases, not excluding encephaloid, are liable to come. I honestly believe a teaspoonful of warm water would be just as refreshing and soothing to the uterus, and just as likely to prevent disease. There is, as Bertillon has said, no scientific basis for the assertion that the innocuousness of coition is assured by the projection of the spermatic fluid upon the neck of the uterus. He further states that while this practice, that is, the withdrawal before ejaculation, fails alike in decency and good taste, it is not our affair: we leave it to husband and wife. Further, let it be added that this question has its moral aspect, and the condition must be altogether exceptional justifying a healthy husband and wife in thwarting, by this or other methods, one of the chief ends of marriage, viz: reproduction.

The *condom* is used by men, not only who are married, to prevent conception, but by the unmarried, to protect from disease. Ricord's brief description of this device should be remembered—a cuirass against pleasure, a cobweb against danger.

The various vaginal injections that are employed immediately after coition, to prevent conception, are too well known to need mention.

Abstinence from intercourse at those periods most favorable to impregnation is a method which is, of course, very uncertain, sometimes disappointing those who put their trust in it.

Finally, abstinence may, in some cases, be imperatively demanded. No man has a right to sacrifice or imperil the life of his consort, to purchase for himself a momentary gratification. Again, it would be better if the diseased did not marry, or, having married, if they should have no posterity. The girl a constant victim of hysteria, or subject to epilepsy, any confirmed epileptic, male or female, the tuberculous man or woman, the exhausted debauchee, have no right to enter matrimony: it is not a hospital or infirmary for the treatment of disease, nor a reformatory institution for the moral leper. More intelligent and just

public opinion will do away with such outrages: but until that day comes society must endure these as well as other evils: and work for doctors—who are constantly, by all science and art, endeavoring to set aside the great law given by Darwin, of the survival of the fittest, since their effort is to make the unfit survive—will flourish under such malign influences.—*College and Clinical Record.*

TRANSLATIONS.

Resorcin in Abscesses and in Diseases of the Rectum. Dr. Justin Schleer, Munich.—(1.) A woman, aged 40, previously always strong and healthy, suffered in 1878 from a subcutaneous abscess in the back, about four fingers' breadth from the spinal column, on a level with the fourth rib; the abscess secreted a moderately thick, inodorous pus. Half a year after the formation of this one, others appeared, with fistulæ, upon both sides of the spine, reaching as far down as the crest of the ilium. The openings of the last were as intractable as those of the first. The diagnosis of the House Surgeon was caries of the vertebræ.

Present condition: The skin is cool and covered with a clammy sweat: the ends of the fingers are club-shaped and cyanotic. Upon the back are three fistulæ, communicating with one another. The chest moves symmetrically in breathing. The intercostal spaces are drawn in, at the base of each lung: posteriorly, there is dullness on percussion extending upwards for three fingers' breadth. At these places the vocal fremitus is increased. Auscultation showed only diminished respiratory murmur. The menses have stopped for one year (1879). There is no fever, and the urine is free from albumen. My diagnosis then was chronic double pleurisy, with external communications.

Treatment: The fistulæ, which for two years had been treated with plasters and salves, were enlarged, and were daily, once or twice, washed out with concentrated solutions of resorcin, while the neighborhood of the same was subjected to energetic massage. In two weeks all the fistulæ were closed and the pains disappeared. The patient

slept well, and held herself erect; at the beginning of the treatment she always stooped, and could barely walk. For complete recovery, a change of air was advised.

(2.) A cachectic man, age 48, had suffered for fifteen or twenty years with an irregular sort of diarrhœa: he had consulted the most eminent physicians of his place, and had used almost every drug in the pharmacopœia, but without any noticeable effect. While the majority of his physicians ascribed his troubles to internal hemorrhoids, the minority maintained that the diarrhœa was caused by chronic catarrh of the rectum.

In spite of an undisturbed appetite and good digestion, his sleep and his strength constantly decreased, notwithstanding the narcotics and wines that had been ordered; and his uneasy family finally told me to attempt a resorcin treatment.

After several weeks of treatment [illegible] were reduced from twenty or thirty to three or [illegible] four hours. He thereby enjoyed unbroken sleep, so that the pale, baby patient soon recovered a natural color and new strength.

I now carefully examined the rectum with the hand and fingers. I found this lower intestinal segment, all around on its mucous surface, covered with knots, varying in size from a pea to a cherry. Cauterizations of these new growths with resorcin powder and crystals of resorcin in cacoa butter, had no poisonous, but rather a curative effect upon the man; but, unfortunately these knots, which I thought were cancerous, could not be readily removed.

I recommended him to Prof. Czerny, of Heidelberg, who excised a piece of the rectum eight centimeters long and ten broad; this piece, upon examination, proved to be cylinder celled carcinoma. At the present time, two years after the operation, the patient is enjoying the best of health.

Sterility Resulting from Altered Vaginal Secretion. Dr. Jung, Vienna.—Dr. J. reports a case of sterility which was caused by abnormal mucous secretion of the vagina. The mucous, as observed three or four hours after coitus, exercised a deleterious influence upon the spermatozoa, which showed no sign of motion. Astringent injections of the vagina and high baths were employed with success, and within three months conception took place, after she had remained childless for about fourteen years of her married life. Her sterility had previously

been treated unsuccessfully with cauterizations of the cervix with nitrate of silver, and bilateral incision of the os.

Treatment of Diphtheria. Dr. Mollereau.—Dr. M. has had an opportunity of trying, in his own family, the treatment of croup and diphtheria with 1 per cent. solution of bromine, published by Dr. Teste in 1877. Two of his children, who suffered from a severe attack of diphtheria, were saved by this method. The solution (1 of pure bromine to 100 water) is a transparent, orange-colored liquid, of pungent taste and penetrating odor. It must be kept in a black bottle.

Dr. Teste has laid down the following rules:

1. A flask of the solution must be prepared beforehand, in order to have it always at hand.

2. The patient must take one to three drops in a spoonful of sweetened water, every 15 or 30 minutes.

3. After several hours, the treatment may be suspended, though not for more than two hours at most.

4. In administering the remedy, a glass-spoon or wine-glass must be used, because the bromine attacks metal, and forms salts with it.

5. It is best to place the patient on absolute diet, at least on the first day. Small children may take some diluted wine; older children some fatty broth; milk and starchy (mealy) substances must be avoided, since they neutralize the action of the bromine.

6. Gargles prepared by adding a teaspoonful of wine-vinegar and a teaspoonful of sea salt to water, to assist in the cure. (Dr. M. employed a spray of 1 per cent. carbolic solution.)

7. In the sick-room, as a prophylactic, place a small dish containing a spoonful of bromine solution, which is renewed two or three times a day.

Three or four doses suffice to diminish the frequency of the pulse (for example, from 140 to 80). The local symptoms slowly subside, in 18 or 20 hours the false membranes begin to soften.

The Red Vulcanized Caoutchouc Sound in Lithotomy. Dr. Calvet.—Dr. C. advises to place a red vulcanized coautchouc sound in the bladder after every perineal lithotomy, and to leave it there until healing takes place. On the one hand, these sounds are so smooth and flexible, that they occasion no pain when the patient moves: and, on the other hand, this surface is not attacked by the

urine, so that they can be left in position for eight or ten days. The thighs must be brought as close together as possible, and kept in an elevated position by means of a straw cushion: a vessel for the urine should be placed underneath, in which rests the leg nearer to the internal position of the sound. In this manner, wetting the surface of the wound is prevented, and union by first intention obtained.

Epilepsy arising from narrowing of the Vaginal portion of the Uterus. Prof. von Nussbaum.—Prof. von. N., after vainly employing the usual remedies, has often found as a cause of epilepsy a narrow pointed, and sometimes cartilaginous vaginal portion; and he observed the disease to disappear after dilatation by means of Ellinger's forceps or a bistoury. In such neuroses, the physician should above all think of a disease of the uterus, and he would often obtain surprising results from a careful examination. A lady for seven months, regularly had a "laugh-cramp," at two o'clock every morning. Everything was tried in in vain; finally, an examination with speculum showed an ulcer on the vaginal portion. A single cauterization with nitrate of silver sufficed to ease the disease.

Tincture of Iodine in Malarial Intermittent Fever. Dr. Luigi Concetta, of Rome.—The dose in which Dr. C. employed tincture of iodine in malaria, amounted usually to 24–30 drops in two ounces of water, given in three portions during the intermission. If the disease progressed favorably, the patient received that quantity every day, until they left the hospital. The time of the treatment with iodine varied from two to thirty-eight days. The drug was well borne, since in only 3 cases out of 183 was it put aside on account of gastro-intestinal pains.) Dr. Luigi Gualdi, chief physician to St. John's Hospital, has seen multiple hæmorrhages in a woman after ten or twelve days of treatment with this remedy: he could attribute the hæmorrhages to no other cause.)

Of the 183 patients treated with the tincture of iodine, 143 recovered; the remaining 40 may be given over to quinine, since that remedy helped to break up the attacks. Among the 143 recoveries were 9 which had been previously treated with quinine without success. The per centage of cures was $78\frac{11}{16}$. The type of the attack was various, and can only positively be given in 89 cases. Among the favorable cases were 14 quotidian, 24 simple

and 20 double tertian, and 4 quartan. The last seemed to be the most obstinate. Relapses also occurred. The author concludes by saying that even if further experiments should not be as favorable as his own, it will nevertheless always remain a good auxiliary therapeutic agent to quinine, and is also much cheaper than the latter.

Tracheotomy in Traumatic Emphysema of the Neck and Head. Dr. Hermann Schmidt.—A blacksmith, aged 50, fell, striking his neck on a bar of iron: this gave rise to traumatic emphysema on the neck and head, which threatened life by its extension. Tracheotomy, performed by Dr. S., had an instantaneous effect upon the breathing, and in three days the emphysema disappeared.

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

PUBLISHED MONTHLY.

Communications relating to medicine are invited from every source. Matters of more than ordinary importance are occurring daily to country physicians, brief reports of which this Journal would be glad to get.

In sending such communications, and others pertaining to Editorial Department, address DR. RUDOLPH MATAS.

Matters pertaining to business should be addressed to DR. L. F. SALOMON.
Direct in either case to P. O. DRAWER 282, NEW ORLEANS, LA.

EDITORIAL.

THE SIMS MEMORIAL FUND.

In a preceding number of this Journal we devoted a part of its editorial columns to a panegyric of J. Marion Sims, in which we testified our high appreciation of his character and profound admiration for the inventive genius which has added so much glory and honor to American surgery. Our readers are already too well acquainted with, and sufficiently appreciative of, the imperishable benefits conferred on woman-kind, and through them to the whole race, by the "Father of Scientific American

Gynecology," to require further reminder of his merits in these pages. Our purpose to-day is merely to direct, in the most prominent manner, the attention of our friends to the appeal from the "Sims Memorial Fund Committee," which we herewith append. In so doing we cannot refrain from expressing our admiration for the prompt action taken by the eminent gentlemen in New York city, who organized, in a manner so worthy of their noble purpose, and so characteristic of the practical activity and thoughtful prevision of our Northern colleagues. It now rests with us to answer in a becoming manner this just appeal, and we believe that the South, in whose bosom the most original and fruitful of Sims' ideas were first conceived and realized, will not fail to manifest to the world her just pride in having given birth to so great a son. Neither can we forget, as our eminent contemporary, the *Medical Record*, so ably says: "That aside from honoring a medical brother, the profession can understand that by raising a monument to Sims, or contributing to an otherwise suitable memorial to him, they help to establish the principle that great deeds in medicine merit public recognition alongside of those in literature, art and war. That to save human life, to devise new methods of alleviating suffering, to faithfully minister to the demands of common humanity, involve wider aims and loftier purposes than those which thrill the poet, inspire the musician, encourage the artist, or stimulate the soldier":

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations; and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from sufferings directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—*Medical Record*.

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Other names may be added to this list from time to time.

A VALUABLE ENDORSEMENT.

In the interesting and instructive volume, written by Magnin and Sternberg, on "The Bacteria," which has just been issued (second edition) in an enlarged and elegant form by Messrs. Wm. Wood & Co., New York, we are pleased to notice in the chapters devoted to the "Relation of Micro-organisms to Infectious Diseases," among which yellow fever ætiology is studied, that one of the distinguished authors, Dr. Sternberg, substantially corroborates the statements made in the October number of the JOURNAL, when, in an editorial on the "State of Evidence on the Morphology of the Blood in Yellow Fever," we took the trouble to point out the glaring defects of what have been properly called the pseudo-discoveries of Domingo Freire and Carmona y Valle. In that paper we contrasted the evidence furnished by the most compe-

tent histologists who have investigated the subject, and especially referred to the labors of the Havana Yellow Fever Commission of the National Board of Health, of which Dr. Sternberg was a member, and on which alone we could undertake to prove that Freire and Valle's pretensions are in reality baseless deductions or erroneous intrepretations. We see, however, that in analyzing the experiments of the Mexican and Brazilian investigators, Dr. Sternberg has labored under serious disadvantages, as his information has been derived from second hand and imperfect sources as evinced by his repeated quotations from translated extracts given in the *Medical News*. We are satisfied that if the author had read the original book of Freire on the subject, or Valle's article as it appeared from his pen in the *Cronica Medico-Quirurgica*, of Havana, our author would have had still greater reason to emphasize his doubts as to the value of either experimenter's work. We, who have read the original papers of the writers in question, can safely say that no works of such pretensions evince more carelessness in experimental method, more disregard of technical precautions, and more reckless tendency to illogical and unwarranted conclusions than do the labors of these investigators, or "sleepless scientists," as they have been styled by certain admiring micro-philists.

We hope that the sad but worthy end which M. de Lacerda's yellow fever microbe (pigment particles!) met in Cornil and Babe's laboratory at Paris, will serve as a warning to those journalists and fashionable orators, who are so fond of pointing to these discoveries as undeniable evidences of the triumphal progress of the present scientific age.

THE DANGERS OF TAPPING A HYDROCELE.

In a paper recently contributed to the *Annals of Anatomy and Surgery* (January number), Professor Wyeth, of the New York Polyclinic, briefly but ably discusses the surgical treatment of hydrocele, and dwells upon what we

have long ago believed to be true, *i. e.*, that the operation of injecting an irritating liquid, such as tincture of iodine, pure or diluted, with water, alcohol, port wine, carbolic acid, fluid extract of ergot, etc., into the sac of a hydrocele after the withdrawal of the fluid, is not so harmless and innocent a procedure as is usually believed. In this paper, Wyeth, besides pointing to fatal cases which have occurred in the practice of eminent surgeons, such as Astley, Cooper, Gross, and others, relates a case, in the clientele of a medical friend, which he was especially requested to treat by tapping and injecting with iodine: this he did, though contrary to his usual practice. A sloughing cellulitis supervened which proved fatal in spite of all efforts to arrest it, obscure symptoms of iodism also complicating the case. This experience has strengthened his convictions in regard to the dangers of tapping and injecting a hydrocele, a practice which he has now completely abandoned.

We can confirm his words when he says that extensive œdema of the entire scrotum and penis has followed a few hours after an exploratory puncture of a hydrocele with a small-sized hypodermic needle, the fluid oozing out of the puncture in the tunica vaginalis and into the layers of the scrotum. In fact, it is not more than a few days since that we had to open an abcess of the scrotum with threatened sloughing, the result of simply tapping a hydrocele with a trocar, without injecting any irritating fluid whatever into the sac. It is on this account that we are thoroughly satisfied of the truth of Professor Wyeth's remarks and of the superiority of the method recommended by him for the radical cure of hydrocele—the open method, *i. e.*, free incision into the sac and stitching of the parietal layer of the tunica vaginalis to the integument at the margin of the wound, at times coiling a small drainage tube into the sac. This method, which is extensively practiced in the Charity Hospital, particularly in Dr. Logan's wards, commends itself as being by far superior to the old operation, not only because of its simplicity and harmlessness, but on account of its certainty as a curative measure.

THE LOUISIANA STATE MEDICAL SOCIETY.

Though it may be considered premature by some to direct at this early moment the attention of our Louisiana readers to the approaching meeting of the State Medical Society, which will be held in Baton Rouge next May, we deem it our duty now to call upon all those who are interested in the welfare of the fraternity to prepare themselves for this occasion, which, with proper anticipation, good will, and concerted action, cannot fail to prove one of the most memorable and useful in the history of the organization.

The fact that the meeting is to take place in the capital of the State at the very time when our legislative bodies will be in session, should serve as a stimulus to action, even to the most apathetic. Never has a better opportunity been offered to elevate our professional status, or lay before our legislators the wants of the physicians of this State in a more telling manner, and it behooves each and every practitioner throughout the territory of Louisiana to attend this meeting, in order that he may strengthen the common cause and help to bring about those results which can only be attained by the unanimous voice of an authoritative, representative and influential organization.

The success which attended the Shreveport meeting last April, is probably one of the best evidences of a medical revival in our State and augurs favorably for the future well-being of the society; still, when we consider that out of the 200 regular physicians of this city, only 59 are members of the society, and many of them but indifferent attendants to its meetings; and furthermore, that out of the 850 respectable physicians who practice in this State, only 159, including those of Orleans parish, have joined its ranks, it becomes evident that we can never be too early in our appeal for more fraternity, more organization, and more action.

We know that every effort is being made by the Baton Rouge members of the society, notably Drs. Day, Dupree, and others, to make the meeting in their city as attractive

and interesting as possible. And the honored president of the society, Dr. Davidson, of this city, is, we are certain, using every endeavor that his distinguished talent and experience can suggest in order that the approaching convention may prove as useful, instructive, and brilliant a gathering as ever graced a meeting hall.

Monthly Report of Obstetrical and Gynecological Work in the Charity Hospital.

(Service of Dr. E. S. Lewis.) (*Ward* 35.)

By Ernest Lapeyre, Resident Student.

OPERATIONS.

1. *Oophorectomy.*—V. M., aged about 21 years, had a fall about four years ago and injured her left side. Since then she had very frequent hysterical attacks. There was great sensitiveness over the left ovary, and violent spasms could be induced by pressure over that locality: she suffered besides all the sympathetic disorders attending a grave case of hysteria. The usual medical treatment having been fairly tested, and found of no avail, she submitted to the extirpation of her ovaries by Tait's method. Having been anesthetized, an incision about three inches long was made in the median line opening the cavity of the abdomen. The uterine sound having been introduced, the womb was tilted to the right and the left ovary brought to view. This organ was firmly grasped and the clamp applied around the middle of the Fallopian tube. A stout carbolized silk ligature was then applied beneath the clamp, and the ovary, together with about one-half of the Fallopian tube, clipped off with scissors. The same process was gone through with the right ovary: after which, the wound was carefully closed with wire sutures. The carbolized spray was used throughout the operation, and the wound dressed with dry absorbent cotton, several thicknesses of lint, and the abdomen loosely supported with flannel bandages. The after-treatment consisted in giving

an occasional opium pill to guard against the possible occurrence of peritonitis. The bladder was catheterized three times daily. During convalescence the highest temperature was 101 F., and highest pulse 112, which occurred on the evening of the fifth day after the operation. On the eleventh day the temperature was normal, pulse 80. On the twelfth day patient was sitting up. Sufficient time has not yet elapsed to warrant a statement of the beneficial effects of the operation.

The following is the report of the pathological condition of the ovaries as determined by Dr. H. D. Schmidt, pathologist of the Charity Hospital: "They were found to represent a hyperplasia of all the stroma and follicles of that organ, with an apparent fatty degeneration of the contents of the follicles. The same hyperplasia was found to affect the Fallopian tube and neighboring portions of the broad ligament. The pathological changes very probably depend on a preceding oophoritis."

One operation of colporaphy for cystocele and one of colpoperineoraphy for lacerated perineum were also performed during the month and resulted most satisfactorily.

Removal of Mucous Polypus from Cervix Uteri.—Mary C., aged 43 years, began suffering about 3 months ago with obscure pains about the abdomen and back. Had continual headaches and was frequently nauseated. About 2½ months ago, noticed she lost blood without any accountable reason. These floodings increased to such a degree as to become a regular drain upon her system.

On physical examination she was found to have a mucous polypus about the size of a small almond hanging from the os uteri by a pedicle about 1½ inches long. It was found to be attached to the left side of the cervix.

The pedicle was clipped off, its root throughly scooped out with a curette and the wound cauterized with pure nitric acid. Patient improved rapidly. Floodings have ceased; and within five days after the operations all pain had disappeared and patient was restored to perfect health.

Obstetrical Notes.

There occurred during the first days of January in the lying-in ward a mild form of septicemia, which, though not resulting fatally, is worthy of considerable interest. Five cases delivered naturally were taken successively, on the second or third day after delivery, with a severe chill and pain about the hypogastrium. The temperature rose in each case to about 105 F., with total suppression of the lochia. No such elevation of temperature had occured for several months in the ward, and the fact that these five cases were so uniformly affected was surely worthy of notice. They all yielded to treatment with quinine, though not after considerable damage had been done to the patients' general condition. From 8 to 10 days were required to establish normal convalescence.

That this conditian was dependent on the absorption of some septic material is beyond doubt.

Speculations as to the origin of this poison are rife, and from mature consideration, I am strongly disposed to attribute this septic condition of the atmosphere to emanations from a deep trench that was at the time being dug about 20 yards from the lying-in ward, for the purpose of setting the hospital sewerage pipe. That fact that the septicemia first appeared in the room, nearest this trench, is perhaps entitled to more significance than to its being a mere coincidence.

Correspondence.

THE EPIDEMIC OF DYSENTERY WHICH PREVAILED LAST SUMMER IN LINCOLN PARISH, LA.

We are pleased to acknowledge a valuable letter from Dr. W. F. Smith, of Chudrant station, Lincon parish, La., in which he details his experience in the treatment of an extensive epidemic of dysentery that prevailed in Lincoln

parish last summer. The first cases of the disease occurred about June 15, 1883. In the first ten days of its appearance not less than fifty cases occurred, half of which terminated fatally. These unfortunate results were attributable, in great measure, to lack of medical assistance and injudicious treatment. From the 2d of July to November 4th, Dr. Smith treated four hundred and thirty-one cases of the disease, only nine of which terminated fatally. The disease presented its usual clinical features, and outside of its epidemic character offered no remarkable characteristics. In many cases the occurrence of sero-sanguinolent dejections, cold and clammy surface, intense cramping pains of the extremities caused the people to fear an irruption of cholera in their midst, but of course the otherwise mild character of the disease soon dispelled these fears. About 20 per cent. of all cases were associated with malarial fever. The duration of the disease was usually from five to twenty days. The treatment most successful, employed by Dr. Smith, was the administration of a saline cathartic followed by opium and astringents. Quinine was also given in cases accompanied by malaria. Lead, of all astringents, was the most reliable and acceptable to the stomach. Dr. Smith has little confidence in the use of stimulants, though he believes the supporting treatment should be commenced early: and for this purpose he strongly recommends the milk diet. Ipecac treatment was totally unreliable, and too disagreeable to be used generally. In the few cases in which it was tried it proved so distressing to the patients that it had to be quickly discontinued. Dr. Smith is satisfied that it is decidedly inferior to opium. As regards preventive measures, Dr Smith believes that Austin Flint's prophylactic treatment of cholera epidemics covers all the ground needed to combat an epidemic of dysentery. Special attention, however, should be given to the early diarrhœa, which, as a rule, precedes the more dangerous dysentery.

Editors of the New Orleans Med. and Surg. Journal.

Messrs. Editors: Presuming your journal to be the proper channel, I beg you to allow me a place in its valuable columns for a few remarks.

It is impossible for you not to have noticed that New Orleans lately has been blessed with an unusual number of medical celebrities. There is one man who cures afflicted humanity of strabismus in the twinkling of an eye; there is another one who writes scientific letters for the benefit of the afflicted; there are three or four more individuals who no doubt, perform some other wonderful thing. These men flood the street cars, the streets, private houses, and newspapers, with glaring and rather disgusting pamphlets and puffs on their miraculous performances, and the consequence is, naturally, that the unsuspecting public is gulled.

This class of individuals come to New Orleans every winter, and do no good to anybody, except themselves; having stayed for one or two months, and having made an abundant harvest, they leave their plucked victims to their fate and seek fresh fields.

That these people particularly seek New Orleans is simply caused by the fact that their presence and activity in many of the States of the Union is becoming an impossibility, through the enforcement of the laws governing medical practice in those States, while the medical profession is unprotected in Louisiana, for, whatever laws we have in this respect are not enforced.

A year or so ago one of these itinerants (he honors New Orleans with his presence this very moment) was called upon by the secretary of the State Board of Health and asked to exhibit his diploma in conformity with the laws of the State; the doctor answered that he possessed a diploma, but had left it in California, with which very satisfactory explanation the secretary withdrew and left the field open to the doctor's further operations.

It is a well known fact that no one is a prophet in his own country, but on the other hand, it seems that a prophet is very much estimated in a foreign country; the un-

wary, comprising the *soi disant* intelligent, just as well as unintelligent, flock to him and are plucked; the fee, which the victim will decline to pay the established local physician, he willingly and cheerfully pays the quack tenfold.

In medical matters the public at large is generally very silly and would much sooner listen to a stranger than to a local physician, overlooking entirely that it possesses some kind of guarantee in the resident physician, through his stability, while the migratory bird has long since gone when any mishap occurs, or an unsatisfactory result manifests itself.

Against these observations it may be argued: It being so evident that these men are quacks, no sensible person will trust himself, or anybody he cares for, into the quack's hands. This argument sounds very well, but is utterly sophistical; the public at large is not very sensible in regard to medical matters, but without much reasoning will listen to the quack's loud expostulations and be victimized; this is the wrong inflicted upon the public.

At times the traveling doctor will prove to be a graduate with a diploma, perhaps even a man of ability, who is capable of keeping the promises he announces in high-toned words; he is then a man who has put all shame aside, finding it profitable to blow his own horn loudly to the detriment of the resident physicians, who are just as able and capable of performing the very same cure that the quack announces glaringly, but they are kept silent by the code of ethics, modesty, decorum, decency and good breeding (articles which these traveling doctors do not take much stock in). This is the injustice inflicted upon the medical profession.

The advantage these migratory "doctors" have over the resident physicians is, simply that they are strangers, and being bent on business and making money (no matter how), they put all shame aside, and make their wonderful, exaggerated and unsubstantiated achievements known by persistent and impudent advertisements in the daily newspapers, while the esident physicians have nothing to do,

but to look quietly on and stand the mortification of seeing the reputation of these quacks raised to the skies.

I do not expect by these lines to obtain immediate relief from these wrongs; not only is legislation necessary to obtain relief, but enforcement of the eventual laws, is just as much needed or more. I am simply putting my shoulder to the wheel, trying to give it a push.

A condition, as we desire it, has been obtained in other States, in Illinois and in Alabama, for instance, showing the *possibility* of obtaining a similar result in Louisiana. We might, for instance, have such a power conferred upon the State Board of Health that would give it the right to issue licenses to any practitioner with a diploma, and the right to revoke the license whenever the holder, by his actions (through glaring advertisements, illustrated pamphlets, handbills, etc.) showed a disposition to play the charlatan. As a matter of course the State Board of Health would have to be empowered with sufficient authority and means to enforce the law and to institute energetic and speedy proceedings against the malefactors. Otherwise the thing would be a farce, as it is at present.

J. F. M.

New Orleans, January 24, 1884.

Reviews and Book-Notices.

A Practical Treatise on Materia Medica Therapeutics. By Roberts Bartholow, M. D., L.L. D., Professor of Materia Medica aad General Therapeutics in Jefferson Medical College of Philadelphia, etc.: Fifth Edition, revised and enlarged. New York: D. Appleton & Co., 1, 3 and 5 Bond street, 1884. [New Orleans: Armand Hawkins, 169½ Canal street.]

Since its first appearance in 1876 "Bartholow's Therapeutics" has deservedly ranked with the leading text books

of its class. The author's easy, graceful and lucid style, makes its perusal a pleasure, while its eminently practical character commends it to every student and practitioner. The spirit of conviction—verging at times on the most sanguine utopism—which the author exhibits when dealing with the action of drugs, is one of the most fascinating, though dangerous, peculiarities of the book. The optemistic proclivities of the author should cause the inexperienced to be wary of his dicta in many cases, as a too faithful trust in the voice of authority may lead to bitter disappointment at the bedside.

The work has been brought up to the very latest advances in Pharmacology. The physiological action, as well as the empirical application of medicines, is succinctly but very ably and interestingly considered. Proper attention is given to many prominent remedies of recent introduction, such as the barium salts, muscarine, resorcin, kairin, kairoline, convallaria, quebracho, the oleate of mercury, etc., though some of the most valuable of the new remedies have not been given any consideration. We notice that hydriodic, dydrobromic and pyrogallic acids, napthol, cola, cascara sagrada, yerba-sunta, lippia Mexicana, sodium ethylate, boroglyceride, jequirity, the oleate of quinia, and other preparations in vogue and already noted in the United States Dispensatory have been entirely omitted. The clinical index is very usefully gotten up, though the part, relating to yellow fever, would barely satisfy a New Orleans doctor. "Carbolic acid, champagne and turpentine, for vomiting," constitute the sole basis of treatment!

Though there are numerous defects, or at least not altogether safe teachings and recommendations in the book, we must confess that it is disagreeable to find fault with a work of such general excellence as this. No one can read its pages without feeling that he is receiving new and valuable impressions: everywhere we find unexpected hints derived both from an extensive experience and immense erudition which, with the fine judgment of the author and

his attractive way of writing, are sufficient to make this work the constant guide and valued counsellor of both student and practitioner.

STUDENTS' SERIES OF MANUALS.

1. *Elements of Histology.* By D. Klein, M. D., F. R. S., Joint-Lecturer on General Anatomy and Physiolgy in the Medical School of St. Bartholomew's Hospital, London. Illustrated with 181 engravings. Philadelphia: Henry C. Lea's Son & Co., 1883. [New Orleans: A. Hawkins, 196½ Canal street. Price, $1 50. 12mo., 352 pages.]

2. *Elements of Surgical Pathology.* By Augustus J. Pepper, M. S. M. B., Lond., F. R. C. S., Eng., etc. Illustrated with 81 engravings. Philadelphia: Henry C. Lea's Son & Co. [New Orleans: A. Hawkins, 196½ Canal street. Price, $1 50. 12mo. 503 pages,]

3. *Clinical Chemistry. An account of the Analysis of Blood, Urine, Morbid Products, etc., with an Explanation of some of the Chemical Changes that occur in the Body in Disease.* By Charles Henry Ralfe, M. A., M. D., Cantab. P. R. C. P. Eng. Illustrated with 16 engravings. Philadelphia: Henry C. Lea's Son & Co. [New Orleans: A. Hawkins, 196½ Canal street. 12mo., 308 pages. Price, $1 50.]

4. *Surgical Applied Anatomy.* By Frederick Treves, F. R. C. S., Assistant Surgeon to and Senior Demonstrator of Anatomy at the London Hospital, Examiner in Anatomy at the University of Aberdeen, Wilson Professor of Pathology. R. C. S., Eng. Illustrated with 61 engravings. Philadelphia: Henry C. Lea's Son & Co. [New Orleans: A. Hawkins, 169½ Canal street. Price, $1 50. 12mo., 531 pages.]

If the reader will refer to the review columns of this JOURNAL, he will find that its critics have never displayed much sympathy for the class of books now before us. On this occasion we must admit that our general repugnance has been overcome, and that we are ready after a careful

examination of these Manuals to give them a hearty welcome.

Beginning with Klein's Histology, we find that its distinguished author has done himself ample justice and written a book on his specialty which will be of invaluable assistance, not only to the student but to the most advanced worker in histology. It consists of 43 chapters, each and all of them comprehensively and graphically written.

The difficult study of the connective tissue group and the development of bone, are written in a manner that points clearly to a master mind. Much comparative and embryological histology is presented, and no fault can be found with the intricate microcoscopy of the nervous system. Klein can certainly feel as proud of his "Elements of Histology" as of his more voluminous and renowned "Atlas" and Handbook for the Physiological Laboratory.

Surgical Applied Anatomy, by Frederick Treves, is a decidedly interesting little tome. Written in an excellent style, it captivates the reader's attention at once, and thereby readily attains its object, which is to invest the dry and arid data of anatomy with the interest derived from an association with the circumstances of daily life—in other words, it is intended to make "the dead skeleton live." The author has endeavored to make the principle of the book, "the principle that underlies Mr. Hilton's famous lectures on "Rest and Pain." It is divided into six parts, embracing the surgical anatomy of the head and trunk; the thorax, the upper and lower extremities, the abdomen, and pelvis and the spine. The author, assuming that the reader has some knowledge of anatomy, has not entered, except in a few instances, into any detailed anatomical descriptions. Those parts "on the surgery of the arteries," that deal with ligatures, collateral circulation, abnormalities, and the like, have been omitted, as these subjects are fully treated, not only in works on operative surgery, but also in the manuals of general anatomy. Our author has an unusual fertility of illustrative resources; he has evidently stored up a large collection of items from all

sources which he knows how to use to brilliant advantage, in elucidating the questions he discusses. We are satisfied that all who buy the book will be delighted with their purchase, and few will read its pages without acknowledging that they have made a profitable investment.

Ralfe's Clinical Chemistry, as its title implies, is written with a very practical purpose, viz.: to instruct students and practitioners on the chemistry more especially needed at the bedside. It furnishes a concise account of the best methods of examining chemically abnormal blood, urine and other morbid products. It considers in six chapters the organic and inorganic constituents of the human body; the chemical reactions of the chief organic and inorganic constitutents of the body. The blood, chyle, lymph, milk, urine, etc., etc. The chemical theories of various diseases are studied in a brief but able manner. Prof. Ralfe is well known as a teacher, and his present effort does not discredit his excellent reputation. A few sections could have been more profitably enlarged, the one on the Ptomaines, or cadaveric alcaloids, especially as the subject is at present claiming so much attention from the whole profession.

Pepper's elements of Pathology is, probably, the least praiseworthy of these four manuals. We find in it evidences of haste and carelessness, which are not altogether excusable. Some articles, however, are written very ably and deserve commendation. Those on septic infection and fatty degeneration are fully "up to the times," and worthy in themselves of making this a fit companion to the preceding volumes As very unsatisfactory and eminently defective, we would point to the articles on Syphilis and Rickets and the one on Tubercle and Scrofula, which gives but a very meagre representation of even our elementary notions on the pathology of these subjects, Though we cannot recommend this book so well as the others just noticed, yet we are satisfied that it is far from being an unworthy member of the "Students' Manual Series."

Before concluding, we must note the artistic illustrations

which accompany the texts, especially those in Klein's and Pepper's Elements, both of which have been rendered particularly attractive by Mr. Charles Berjeau's finished drawings on wood.

Chemistry, Inorganic and Organic, with Experiments. By Charles Loudon Bloxam, Professor of Chemistry in King's College, London, etc., etc. From the Fifth and Revised English Edition, with 292 Illustrations. Philadelphia: Henry C. Lea's Son & Co., 1883; 8vo., sheep, pp. 738. [New Orleans: Armand Hawkins.]

We have before us a complete work upon theoretical and applied chemistry, it being as thorough as a work upon this subject can well be. For the student of chemistry and the practical pharmacist it meets every indication, and is especially useful to those engaged in manufactures; and as the author is Professor in the Arsenal at Woolwich, he has introduced into the text the chemistry of substances employed in ammunition, etc., thus making the work useful to the military student.

In addition to the theoretical, practical experiments are described, illustrated by wood cuts, showing the form of apparatus requisite and the manner of using it. A copious index serves as reference for formulæ and compounds, the chemical combination and equivalent being given, thus rendering reference easy, without the necessity of having to hunt through the text.

The old established publishing house of the Leas have done a good work in introducing this book to the American chemists and manufacturers, it being particularly valuable to the latter.

We regret that want of space prevents us from showing in detail the particular points wherein this book surpasses any we now have of the same kind, but can honestly recommend it to every one interested in applied chemistry of whatever specialty, as meeting all his wants to as great an extent as a work of its size is capable.

A Manual of Pathology. By Joseph Coats, M. D., Pathologist to the Western Infirmary and Sick Children's Hospital, Glasgow, etc., etc., with Three Hundred and Thirty-nine Illustrations. Philadelphia: Henry C. Lea's Son & Co., 1883. [New Orleans: Armand Hawkins.] 8vo., sheep; pp. 818. (Price, $6 50.)

It has been some years since a new work upon Pathology has appeared, and the author of this, owing to his large experience as a practical pathologist, has written a book which is as instructive as it is complete, being brought up to the latest advances in that science. The plan of the work is one which will meet with universal approval, including as it does the etiology and anatomy as well as the pathology of all morbid conditions. This is a decided improvement upon most works on pathology, tending as it does to give a clearer idea of pathological conditions, through a distinct elucidation of their etiology and comparison with the normal anatomy of the parts affected. We commend the work as filling the wants of the practitioner and student. The illustrations are mostly new and are well executed.

A novel feature, and one at the same time very useful, is the arrangement of the index, whereby the derivations of all technical terms are given, so that this portion of the work is, as it were, a medical lexicon in itself.

Epitome of Skin Diseases with Formulæ, for Students and Practitioners. By the late Tilbury Fox, M. B., M. R. C. P. Third American Edition, Revised with Additions. By T. Colcott Fox, B. A. (Cantab.), M. B. (Lond.), Physician for Diseases of the Skin to the Westminster Hospital, etc., etc. Philadelphia: Henry C. Lea's Son & Co., 1883. 12 mo., pp. 240.

To those who are not engaged in the special study of dermatology, and have neither the time nor inclination to peruse more voluminous works upon dermal diseases, to the general practitioner and medical student we commend this little work of Dr. Fox as being a complete epitome of

diseases of the skin. It is divided into three parts. Part I is devoted to general observations, pathology, classification, general diagnosis, and etiology of affections of the skin. Part II includes the treatment, and the diseases are arranged alphabetically, thus making reference easy. Part III is given to the description of remedies used and their mode of application, including that very important branch of dermal therapeusis—"diet in skin diseases." The author has inserted, for the convenience of American readers, the classification which was adopted by the American Dermatological Association in 1878, and which is the best yet offered. We are pleased to note the fact that a short chapter has been intercalated touching upon that very important subject—the difference in the numerous diseases of the skin as existing in the United States and in Europe; and differences of opinion in regard to pathology, and nomenclature dependent thereon. At the last International Medical Congress an effort was made to reconcile these differences, and in view of the rapid advances made, and the prominence which has been attained, by this special branch of medical science, it is to be hoped that ere long a universal nomenclature, based upon agreed pathological conditions, will be agreed upon. Numerous formulæ for internal and external medication are appended, to which reference is made in the text.

A Plea for the Cure of Rupture; or, the Pathology of the Subcutaneous Operation by Injection for the Cure of Hernia. By Joseph A. Warren, A. M., etc., etc. Boston: James R. Osgood & Company. London: J. & A. Churchill. 1884. (Cloth. Price, $1 25.)

This is a brochure well worthy perusal by surgeons. The plan of the author consists of injections of fluid extract of white oak bark for the purpose of producing adhesive inflammation and obliteration of the opening. The delicacy of the operation and the particular manner of

its employment are carefully and plainly described. A table of twenty-eight cases of all varieties of hernia is given, all of which were cured.

We trust that all who are interested in the cure of hernia will procure this book and give it a careful perusal, for it is more than worth its price in teaching us how that opprobrium of the surgeon may be relieved, and many who are suffering from that annoying and at all times dangerous deformity may be restored to the enjoyment of freedom from this distress.

The author lays particular stress upon the fact that the object of the injection of *Quercus Alba* is to produce "*a local inflammation without suppuration*" and the formation of new fibrous tissue, and not as has been supposed because it acts as an astringent.

Part V is an interesting and important chapter upon "The Proper Fitting and Wearing of a Truss," which alone will well repay perusal. We bespeak a large sale for the work.

Publications Received.

The Medical Record Visiting List for 1884. New York: William Wood & Co.

Index to Transactions of the American Medical Association. Vols. I to XXXIII. Prepared by Wm. B. Atkinson, M. D., Permanent Secretary.

Transactions of the American Dermatological Association. At the Seventh Annual Meeting, held at Lake George, August 29, 30 and 31, 1883.

The Electro-Osteotome—A New Instrument for the Performance of the Operation of Osteotomy. By Dr. Milton Josiah Roberts, New York.

The Increase of Insanity in the United States; Its Causes and Sources. By Foster Pratt, M. D., Kalamazoo, Mich.

A Plea for the Cure of Rupture, or the Pathology of the Subcutaneous Operation by Injection for the Cure of Hernia. By Joseph H. Warren, A. M., M. D., etc. Boston: James R. Osgood & Co.

Surgical Applied Anatomy. By Frederick Treves, F. R. C. S., etc. Illustrated with 61 engravings. Henry C. Lea's Son & Co., Philadelphia.

Elements of Surgical Pathology. By Augustus J. Pepper, M. S., M. D., London, F. R. C. S., England, etc., illustrated with 81 engravings. Henry C. Lea's Son & Co., Philadelphia, Pa.

Clinical Chemistry. By Charles Henry Ralfe, M. A., M. D., Cantab; 16 engravings. Henry C. Lea's Son & Co., Philadelphia.

Epitome of Skin Diseases, with Formulæ. By the late T. Colcott Fox, Third American Edition, Revised and with Additions by T. Colcott Fox, B. A. (Cantab), M. B. (Lond.). Philadelphia: Henry C. Lea's Son & Co., Philadelphia.

Allen's Human Anatomy, Sec. V. Henry C. Lea's Son & Co., Philadelphia.

The Archives of Pædiatries. A monthly journal devoted to the diseases of infants and children: edited by William Perry Watson, A. M., M. D.; Vol. I., No. I.

Bichloride of Methylene, used in Pucker's Inhaler. By John H. McIntyre, M. D., St. Louis, Mo.

Fat and Blood: An essay on the treatment of certain forms of Neurasthenia and Hysteria. By S. Weir Mitchell, M. D., member of the Natural Academy of Sciences of Philadelphia, etc. Third edition, revised, with additions. Philadelphia: J. B. Lippincott & Co. London: 16 Southampton street, Strand, 1884.

Kansas City Medical Record. A monthly journal of medicine and surgery. Vol. I., No. 1, January, 1884.

Bacteria. By Antoine Magnin, Licentiate of Natural Sciences, etc., and George M. Sternberg, M. D., F. R. M. S., Major and Surgeon U. S. Army, etc. New York: Wm. Wood & Co., 56 and 58 Lafayette Place, 1884.

The Medical Student. A monthly journal of college doings in medicine and the collateral sciences. Vol. I, No. 3. Wm. G. Mortimer, editor and publisher, New York.

Some Recent Progress in Diseases of the Nervous System. By Talbot Jones, M. D., St. Paul, Minn. Reprint from *Alienist and Neurologist*, St. Louis, January, 1884.

Illustrated Medicine and Surgery. Edited by George Henry Fox and Frederic R. Sturgis. Quarterly. New York: L. B. Treat, No. 157 Broadway.

Conversations upon the Physical and Medical Hygiene of Girlhood. By Thomas L. Powell, M. D., etc. Reprint from *Southern Medical Record*, Atlanta, Ga., 1881.

Lister's System of Antiseptic Wound Treatment versus its Modifications. By B. A. Watson, M. D., 1883.

Trismus Nascentium, or the Lockjaw of Infants. Its History, Cause, Prevention and Cure. Illustrated by Cases and Postmortem Examinations, with Statistical Table of 229 Deaths. By J. F. Hartigan, M. D., Washington, D. C. Reprint from *American Journal Medical Sciences.*

International Review of Medical and Surgical Technics. Official Organ of the American Association of the Red Cross. [Published quarterly.] Edited by Joseph A. Warren, M. D., Charles E. Warren, M. D., and Willard E. Smith, M. D.; Vol. I, No. I.

Transactions of the American Surgical Association. Vol. I. Edited by J. Ewing Mears, M. D., Recorder. Presley Blakiston, Son & Co., 1880, 8vo.

Transactions American Gynecological Society. Vol. VIII, for 1883. New York: D. Appleton & Co.

Current Medical Literature.

Oleate of Iron in the Preparation of Ferrated Cod Liver Oil.—My attention has been repeatedly directed to the desirability of obtaining a preparation of iron which should be freely soluble in fixed oils, more particularly in cod liver oil. Among the different formulas recommended there is not one, to my knowledge, in which the iron is in anything like a desirable form for exhibition.

Most of the *combinations* of iron with cod liver oil (if such a term may be employed) are effected by exposing the oil for a longer or shorter time to an elevated temperature; the result being un unpalatable, and to some palates an extremely nauseating compound: whilst the quantity of iron contained in each dose, in such a form as to be readily assimilable, can only be roughly estimated.

Oleate of iron, when carefully prepared, appears to overcome all objections which may be raised against ferrated cod liver oil, since it is readily soluble in the oil in almost all proportions without heat; producing, when combined with the best brands of pure Norwegian oil, a clear solution of a light brown color, absolutely free from disagreeable odor or smell, and not more liable to become rancid from keeping than the oil in its pure state.

The neutral Oleate Fer. $(C_{18}, H_{33}, O_2)_2$, may be readily prepared by decomposing an aqueous solution of sodium or potassium oleate, by one of ferrous sulphate or chloride, well washing the oleate formed and freeing it rapidly from all adhering matter, avoiding all unnecessary exposure to the air, which causes it to become, in a measure, insoluble.

When freshly prepared oleate of iron is of a pale brownish color, which rapidly changes to dark reddish brown; owing to the absorption of oxygen it may be preserved for a considerable time in a solution of sugar in water, which seems to retard its oxidation.

The proportions of the oleate to cod liver oil may be varied according to the requirements of each individual case; but, as a general rule, a solution containing 6.5 centigrammes (one grain) to 4 grammes (one teaspoonful), or the same quantity to 15 grammes (one tablespoonful), will be found to answer all purposes.

Iodine may be combined with the ferrated oil without causing a precipitate. R. N. Girling.

A Sad Discovery in Homœopathy.—Dr. J. Edwards Smith, a leading light among homœopaths, has, according to the *Philadelphia Medical Times*, made the startling discovery that the *sugar of milk*, which is and has for so long a time been employed as an inert vehicle in making triturations, is universally impure.

We quote the language of the *learned* doctor as rendered by the same journal:

"The first effect upon the mind, which an unquestionable proof that *all sugar of milk*, wherever bought, contains at least enough silica, alumina and iron to constitute itself the sixth decimal potency of these drugs, if it have received the requisite amount of trituration, is a fact which seems stupendous when we reflect that many of the polycrests may only be prepared by trituration, while the process has been adapted to many other drugs. The matter is not benefited, apparently, by the matter placed on record by Dr. Conrad Wesselhoeft, that the glass of bottles, such as we use for preserving dilutions, is, to a very appreciable extent, soluble both in water and in 95 per cent. alcohol. We see at once that whenever we have prescribed an attenuation of any remedy we have in reality administered two or more drugs: and furthermore, with reference to silica, alumina and iron, we have never given them in a potency higher than the sixth decimals, if one measure potency by dilution rather than by dynanization."

The rapid strides of modern science are rendering the *honest* practice of homœopathy more and more difficult. It is only those who are willing to overlook the truths which are clearly presented to their notice who can succeed

in practicing the so-called *art*, based as it is on absurdities and contradictions, and whose votaries, in many instances, if not in all, are too eager to barter science, common sense and self-respect for gain.

Vaccinia and Variola.—Some of our readers may remember how, in April, 1881, Dr. Leonhard Voigt, the superintendent of the Vaccine Institute at Hamburg, experimentally solved the vexed question of the origin and nature of cow-pox, and vindicated triumphantly the reputation of our immortal countryman, Jenner. The subject, however, is of such importance that, before stating the conclusions at which he has arrived after two years' constant and laborious observation and experiment, it may be as well shortly to recapitulate his earlier proceedings.

Two views had hitherto been, and notwithstanding Dr. Voigt's absolute demonstration of the erroneous character of one, are still, held on the relation between cow-pox and small-pox. Jenner believed that horse and cow-pox were originally derived from man, and were, in fact, modified forms of small-pox, altered by their transmission through the bodies of the lower animals. Ceely and Badcock in England, and Thiele in Russia, held the same views, and believed that they had successfully effected the transformation. The former, in 1840, sent some of his lymph to Schneemann in Germany, where it was long used with the best results. But Dr. Martin, of Boston, a strong advocate of animal vaccination, on trying to repeat the experiments of Ceely, set up an epidemic of small-pox, the disease spreading from his vaccinated subjects by ordinary contagion; and the like unfortunate consequence followed other attempts of the same kind, and put a check to further enterprise in the same direction.

The second opinion is that of the French school, represented in this country by the veterinary surgeon, Fleming, and shared by many of less note. It may be briefly stated as follows: Small-pox, sheep-pox and goat-pox, are acute specific diseases, highly infectious, attended by general febrile disturbance, and extremely fatal; in fact, bearing a close resemblance one to the other, but not mutually protective. Horse-pox, cow-pox, and camel-pox, on the contrary, are merely local diseases, with little fever, and no danger to life, communicable only by actual contact or in-

oculation; and yet, strange to say, each of them is antagonistic to, and protective against, small-pox. Small-pox, they say, if inoculated into the cow, is unaltered; the local manifestation is merely a blind boil in most cases, but, if any fluid can be obtained from it, it is still small-pox virus pure and simple. They thus account for Martin's unlucky experience, and explain away Ceely's seeming success by urging that his supposed vaccinations were, in fact, mild and favorable examples of inoculations of small-pox itself, though they find it best to ignore the subsequent successes of Schnemann.

This was the position of parties when, in the winter of 1880–1, Voigt resolved on investigating the whole question afresh. His first attempts to inoculate the calf with human small-pox were, as usual, unsuccessful; indeed, the difficulty is such that Reiter failed in fifty trials, extending over ten years, though he succeeded in the fifty-first. On the four occasion, using pus from a virulent case of unmodified small-pox, Voigt was rewarded by the production of a *bouton*, on which a small vesicle appeared for a few hours. He found what he deemed a *corpus vile*, in an ill-nourished scrofulous child, not previously vaccinated, and under treatment for itch, in a ward in which small-pox had just broken out. Somewhat rashly, he vaccinated the child with the fluid from his vesicle: the results were alarming, intense fever, axilliary buboes, etc.: but, fortunately for all parties, the child survived. He then vaccinated a calf with the same lymph, and a third from the second, and so on. From the fourth in succession he vaccinated four children: of these, one failed to take, but the others were rather severely affected. From the thirteenth and fourteenth calves he again vaccinated children, with excellent results. Indeed, from and after the ninth in the series of calves, the pustules were indistinguishable from the best Beaugency stock, both in themselves and in their results on the human subject. Voigt, therefore, concludes, not only that Jenner was right in his idea of the origin of cow-pox, but that Martin's untoward results were due to his having, like himself, used variolous matter of a virulent type, and neglected the precaution of mitigating it by successive transmissions, or, as Pasteur would say, cultivations, in the calf. All cases of cow-pox supposed to be spontaneous are, he believes, cases of unintentional variolation, or retro-vaccination, as when a woman milks a cow after handling her recently vaccinated infant. Thus, too, he explains the

usual seats of the disease in the horse and the cow, the ankle of the former and the udders of the latter being the parts most frequently handled: and the exemption of the males, bulls or oxen, is easily intelligible on the same hypothesis, for in retrovaccination bull-calves are found to be quite as susceptible as the other sex. The various sources of the so-called spontaneous cow-pox in vaccine, in modified and mild variola, or in variola of a severer kind, equally account for the varying intensity of the results obtained in the first vaccination performed therewith.

During the past eighteen months, Dr. Voigt and his colleagues have used the "new lymph" on a large scale, both for retrovaccination of the calf and for vaccinations and revaccinations of the human subject of all ages, and prefer it to ordinary humanised or Beaugency lymph. Unlike the older stocks of animal lymph, it keeps remarkably well in tubes, with or without glycerine. As unavoidable change of quarters, leading to a temporary deterioration, brought out the fact that dry and well-ventilated stalls were essential to success in bovine inoculations, whether with variolous or with vaccinal matter, as he had already been led to consider a moderately low temperature more favorable than a higher.

In his most recently published report, he sums up the results of his observations under nine heads, which may be looked on as an epitome of the whole question:

1. It is possible to create vaccine by the inoculation of the calf with lymph from the pustules of human beings, the subjects of small-pox, but success must not be expected in every case.

2. The energy of variola-vaccine obtained in this way is such that it is not fit for the purpose of vaccinating human beings until it has been several times transmitted from calf to calf, or from ox to ox, and its intensity has been thus diminished.

3. In the first year, this new lymph has a greater protective power than animal lymph of older stocks.

4. Vaccinia and variola are derived originally from the same contagium, and give to those affected by them an immunity one against the other.

5. The duration of this immunity depends upon the intensity of the pathological process.

6. After the lapse of twelve years, persons who have been attacked with small-pox show the same susceptibility to vaccination as those who have been vaccinated at an

equally remote period: consequently, children of 12 years of age, vaccinated in infancy, present a moderately favorable soil for the poison of small-pox.

7. Therefore, revaccination of all children at or even after the age of 12 is highly to be recommended.

8. Animal lymph, originally very active, diminshes in efficacy, when transmitted from calf to calf, sooner than humanised lymph transmitted from arm to arm. On the whole, *i. e.*, after a long time, humanised lymph gives results both in man and beast, whence it follows that animal lymph from old stocks gives less success than retrovaccine of the first generation.

9. Carefully generated, and in well ventilated and regulated stalls, variola-vaccine is the most energetic of all, not only when taken from the calf, but especially in its humanised form. Consequently, if we would obtain the most powerfully protective lymph we should, when occasion offers, from time to time, reproduce a stock of variola-vaccine.—*British Medical Journal.*

Dr. T. Johnson Alloway, in an excellent article on Immediate Suture of a lacerated perineum (*American Journal of Obstetrics*, Jan.), reaches the following conclusions, which we cordially endorse:

1. Examine carefully, *with your eyes*, every perineum after removal of placenta. If lacerated to more than a quarter of an inch, apply the suture.

2. Use one of Emmet's long, straight perineum needles, with a silk suture. By the aid of a holder, force the needle through the skin on the left side of the tear, half an inch from its edge, at any point between the beginning and end of tear, but the nearer to the beginning, that is, the higher up, the better will be the result. Now, with the two fingers of the left hand in the rectum, press up the rectal wall and recto-vaginal cellular tissue, so that the needle can be rapidly, though steadily, made to glide beneath this tissue and over the rectum, hugging the latter as closely as possible, to make its exit at a corresponding point on the opposite, or right side. In tying the suture, avoid doing so too tight, as it is a good plan to allow for swelling, which generally lasts for some days.

3. Be sure that the needle in no part of its course makes an exist in the vaginal surface: if so, you will probably have a pus pocket.

4. The operation is very simple, and can be performed by any physician of ordinary experience.

5. The after-treatment consists in washing out the vaginal passage night and morning with any antiseptic solution the physician is accustomed to use. *But he must do it himself;* the nurse would be as likely to pass the tube below as above the suture, *and kill all your joy.* As regards antiseptics, I use in such cases a solution of corrosive sublimate $\frac{1}{2000}$ once in twenty-four hours, administered at night. I find this solution as handy and harmless as carbolic acid. Tell your chemist to make a ℥ ij. alcoholic solution of hyd. bichl., each drachm of the solution to contain seven and one-half grain of the salt. One teaspoonful of this mixture added to a pint of water will give, almost to a fraction, one part in one thousand. I have used this solution in cases of metria three times in the twelve hours for two consecutive days without any evidence of toxic effects from absorption. It is probably due to the formation of insoluble albuminate of mercury which seals up all breaks in the surface for a time.

6. The suture had better be allowed to remain in situ for nine or ten days. I am strongly in favor of the silk: the wire suture is likely to produce a bleeding point or two on removing it. This accident might prove troublesome from absorption, which is so active at this period of convalescence.

7. The nurse is the only assistant you will require, and is, of course, in your confidence.

Rouge's Operation in Cases of Disease of the Nasal Fossæ.—Mr. Clement Lucas (*Lancet*), after some interesting data concerning Rouge's operation and Lawrence's modification of it, reports a case in which it was twice performed by himself on a patient suffering from syphilitic ozæna. The operation was first described by Rouge in 1873 (*Nouvelle méthode pour le traitement chirurgical de l'ozène*), and consists in dissecting up the upper lip and the nose to allow of free access to the nasal fossæ. This is in reality a modification of an operation previously suggested and practiced by Lawrence (*Med. Times and Gaz.*, Nov. 8, 1862), which consists in turning up the nose alone, after separating it from the rest of the face by incisions, commencing externally at the lachrymal

sac and extending down to the marginal of the alæ, dividing also the cartilages and the septum.

Although some objection has been made to these operations by the few surgeons who have practiced them, on account of the danger of the inhalation of blood, the author thinks well of them both, but particularly of Rouge's, which allows of the free escape of blood anteriorly. The bleeding through the posterior nares, which is an element of danger, he controls by packing a large sponge, with a string attached, into the upper part of the pharynx. This latter precaution also prevents the patient from expelling blood and foul discharges into the face of the operator. The operation is particularly indicated for the removal of polypi and necrosed bone, and may even be undertaken as an exploratory procedure in cases of doubtful nature.—*N. Y. Med. Jour.*

The Toxic Properties of Nitro-Glycerine and of Dynamite.—Prof. Brown in 1877 was physician to a foundry where cannon were made, and hearing the officers of artillery complain of the violent headaches which resulted from the handling of dynamite, resolved to make certain experiments upon himself.

1st. He kept the contents of a cartrigde, 100 grammes, upon his work table for several days, agitating them constantly with a paper-cutter. No effect, showing an absence of all danger of absorption in the form of vapor or fine dust.

2nd. He kneaded a small pinch of dynamite in the hollow of his hand for five minutes. Almost immediately he felt a slight painful numbness along the radial nerve from the base of the thumb to the middle portion of the forearm. Two hours later, tension over the forehead and maxillary tissues, with a ringing in the head, like the commencement of a coryza.

3rd. He rolled a pinch of dynamite between the thumb and index-finger for a quarter of an hour. A half hour later there was a painful sense of tension in the sinus of the nasal fossæ and in the forehead. All day, this being tried at 8:30 A. M., there was a feeling of slight headache. At 4 P. M., on going out into the air, this passed off.

4th. For a quarter of an hour rubbing with force in the palm of the hand a small quantity dynamite. In ten minutes strong tension in the temporal and parietal regions;

pain in the forehead; heat of face; painful arterial pulsation in the neck and at the temples; slight nausea; slight giddiness. This was tried at 2:30 P. M., and some of the symptoms persisted until bedtime.

5th. At 2:30 P. M. placed a piece of dynamite on the tip of the tongue, of the size of a small lentil. At first the taste was sweet, then agreeably acid, and finally burning. He then spit it out, having taken care not to swallow, and got up to wash out the mouth with water, when he was taken with a vertigo which obliged him to hold on to the furniture. The occiput was the seat of a heavy pain; the skull seemed to dilate until it would split open; the heart beat violently and rapidly; the arteries of the neck and temple were distended and beat with excessive violence. There was anxious respiration and slight nausea. He was obliged to make an effort to analyze his sensations and transcribe them. No disorder of urine.

In five minutes cephalic and cervical tension diminished. Pulse 80 and irregular. In a half hour no symptoms other than the cephalic; in an hour nausea on walking, frontal cephalgia, weakness, fatigue and constant yawning. That evening he dined out in company, drank several glasses of different kinds wine and a cup of coffee, which seemed to remove all the symptoms. The next day he felt a disturbance in the head, and the need of quiet, rest and sleep.—*Bull. Gen. de Ther—Jour. Am. Med. Assn. and Ex.*

A Trap to Catch the Unwary.—The following letter was addressed to an eminent gentleman in the Faculty of the University of Louisiana, who handed it to us for publication. It amply explains itself.

"Dear Sir—I wish an indorsement from you for my Emmenagogue Pill made from following:

℞	Ext. Gossypimu Rad. Cost	1 gr.
	" Hilleborus, Nig	1 gr.
	Pulv. Aloes Soc	1 gr.
	Ferri Sulph. Exsic	1 gr.
	Oil Pennyroyal	½ gr.

Make 4½ grain pills.

Dose—1 pill 3 times a day, as an emmenagogue.

You will see it differs but little from the regular emmenagogue sold by the trade, and certainly is not more dangerous and less *abortive*.

I simply want *truth* in these words:

"I am familiar with the Formula of Dr. J. V. Stanton's Emmenagogue Pill, and consider it a safe and reliable remedy in cases of suppression and dismenorrhœa."

Respectfully,

Signed:.....

These goods are never sold for abortive purposes, and such an indorsement could work you no injury. Copy, sign and return, and your reward shall be $25,00."

Turpentine in Diphtheria.—According to Dr. Satlow, spirits of turpentine, administered internally, gives superior results to the usually employed remedies for diphtheria. Its value was accidentally discovered by Bosse, of Domnau, a spoonful having been given by mistake to an infant suffering with diphtheria. Satlow first used it in teaspoonful doses, in March, 1881, in the case of an infant in immediate danger of death. The result was excellent. Two other trials, followed by equally favorable results, convinced him of the good effects of this substance, and of its harmlessness in large doses.

He has now used turpentine in forty-three cases, and has had only one death, the result of paralysis of the heart in a case already convalescent. Of the forty-three cases of recovery, three had diphtheria of the larynx and nose, seven had albuminuria, and one had hæmaturia. There was paralysis in four, and strangury without albuminuria in some others.

Satlow uses, when possible, the freshly distilled spirit in the following doses: For children, up to the age of nine years, he gives a coffeespoonful; for children above the age of nine, two coffeespoonsful, and for adults a dessertspoonful during the day, always giving a quantity of milk or wine after the dose. The appearance of strangury is an indication for the interruption of the treatment, but not for its cessation.

The tolerance of patients for the medicine is variable. After taking it they sometimes complain of a burning pain in the throat, a sense of pressure in the stomach, and sometimes vomit. The addition of ether *m*xv to spirits of turpentine f℥ss will often prevent the vomiting. The greater part of the medicine is eliminated with the feces and urine, the latter having the peculiar violet odor so well known.

The action of the remedy is manifested by swelling and softening of the membranes, which become transparent and finally disappear with the inflammatory phenomena, the painful deglutition, and the ganglionic swelling. The complete effect is only manifested on the third or fourth day in grave cases. The efficacy of turpentine depends upon its antimycotic properties, Koch having shown that a solution of one to seventy-five thousand will arrest the development of charbon spores.—*Centralbl. f. die gesammt. Therap.*, September, 1883.—*Med. News*, January 12.

Subcutaneous Injections of Ether.—Dr. C. E. Sheely (*Brit. Med. Jour.*, November 17, 1883), has had good results from its use as a stimulant. The dose is from fifteen minims to half a drachm. He thrusts the needle through the true skin and superficial fascia, and then enters it for about three-quarters of an inch parallel to the surface. He has never seen abscesses result. As ether is a ready solvent of fat, it is advisable to look to the leather packing of the piston of the syringe as soon as possible after using it, and to re-oil it. The ether also attacks the cement used to secure the mouth to the glass barrel, and they will, sooner or later, become loose. Moreover, as it acts upon "celluloid," a syringe made of this material should not be used. He gives the preference to glass.—*Med. and Surg. Rep.*

Salicylic Acid in Soft Chancres and Buboes.—Autier (*Th. de Paris*) says: 1. The efficacy of salicylic acid in the treatment of soft chancres and buboes appears to us to be unquestionable. While not an absolute specific, it is, in our opinion, capable of being most advantageously employed. 2. Odorless, only slightly painful in its application, soluble in alcohol and glycerine, and leaving no stain on linen, it is preferable, in these important respects, to most other agents employed for the cure of the above named affections, while perhaps inferior in certain other particulars to some among its rivals. 3. It may be resorted to in all cases, both when the sores are large and well exposed, and when they are sloughing extensively, or are reached with difficulty; and it is equally available in private and hospital practice.—*Med. and Surg. Reporter —Cin. Med. News.*

Yellow Fever at Panama.—A private letter from Dr. Wolfred Nelson, of Panama, South America, reports the continued presence of yellow fever there. It appeared in June last, when there was a single case fatal; in July out of seventeen cases eleven died: in August there were three deaths: in September four: October one case fatal. In November, up to the date of this letter, the 21st, there had been five cases, two deaths, one convalescent. Of the remaining two, one was malignant—death certain, one a mild case. The disease had been of a very malignant type. The death rate being over 60 per centum.

The season was very irregular: instead of the usual heavy rains of tropical winter but little rain was falling, and that fitfully alternating with great heat. November is always a very trying month in the Isthmus, it being the last month of the winter, the dry season or summer commencing in December.

Owing to the vast amount of work going on, on the canal, such as the excavating of earth, swamps, etc., an immense amount of fever-producing material is being disturbed, all of this *plus* the presence of an immense staff of canal officers, and other unacclimated people in the Isthmus, and the indescribable filthy condition of Colon, Atlantic side, leads thinking physicians to anticipate that the disease will appear in an epidemic form.

Dr. Nelson during his residence in the Isthmus has experienced the disease himself in a severe form. He has promised the *Record* a series of letters on its various types, such as the malignant, severe and mild.

He further states that Drs. Girard, Didier, and Acoullot, of the Canal staff, are conducting a series of experiments, a la Pasteur, and that their researches, clinical, pathological, and experimental, will appear in due time.—*Canada Medical Record.*

Fraentzel on Hydriodate of Hyoscin in Phthisis.—Dr. Fraentzel recommends (*Wiener Med. Blatter*, July 5,) hydriodate of hyoscin in the treatment of the night-sweating of phthisis, in subcutaneous doses of half a milligramme, or in a pill, beginning with the same dose. He does not find it so universally beneficial as atropine, and it sooner exhibits a narcotic action; but he has seen good results from it in cases where atropine has proved useless, or has failed to act after being in use for some time.—*London Record.*

Calleza on Salicylate of Soda in Diarrhœa.—In an article (*Lyon Méd.*, May 20) on the classification of the various forms of diarrhœa, and on the indications for the employment of salicylate of soda in this affection, Dr. Calleza concludes as follows: 1. The products of the putrefaction of the contents of the intestinal tube are the sole cause not only of a number of varieties of idiopathic diarrhœa, but also of many forms of secondary diarrhœa, in which the pre-existing disease has engendered a predisposition to decomposition. 2. Salicylate of soda is the most efficacious agent for preventing putrefaction in the intestinal tract, without interfering with the normal digestive processes It should always be employed when the stools have a putrid odor, especially if this character have been noted from the commencement. 3. Two or three doses, of fifteen grains each daily, are sufficient for the speedy cure of strictly idiopathic diarrhœa. 4. In the secondary forms of the disease (which are far less common) a trial may be made of the salicylate, rather as a prophylactic measure than with the hope of any marked therapeutic effect. 5. In syphilitic and phthisical diarrhœa, in that accompanying visceral abscess, especially of the liver, and in dysentery, salicylate of soda has produced the best results.—*London Record.*

Coppola on Ptomaines.—F. Coppola (*Gazz. Chim. Ital.*, vol. xii., p. 511; *Jour. of Chem. Society*, 1883, p. 522,) has investigated the genesis of the cadaveric alkaloids. These bases were originally regarded by Selmi, and afterwards by Schwanert, as exclusively products of cadaveric putrefaction. Selmi, however, afterwards modified his opinion, and admitted that ptomaines might be produced during life by pathological alteration, and this was confirmed by Spica. Paterno and Spica, and also Gautier, subsequently showed that reactions similar to those exhibited by the ptomaines might be obtained from substances procured from normal blood, egg, albumen, normal urine, and other animal fluids. Coppola has made a series of experiments on the physiological action of bases extracted from the blood of a healthy dog; and he concludes that alkaloids extracted from healthy animal fluids, which have undergone no putrefactive alteration, may exhibit highly poisonous properties, and that the albuminoids are capable of undergoing changes giving rise to the formation of poi-

sonous bases. It is even surmised that during the extraction of alkaloids by Dragendorff's process albuminoid substances may undergo transformations, giving rise to poisonous ptomaines.—*London Record.*

The Bacteria Question in its Pathological Relation: Drs. W. B. and W. H. Resteven thus summarized an interesting article published in the January *Lancet.*

The following conclusions from what has gone before appear to us to sum up the present position of the pathological history of bacteria, bacilli, and micrococci. 1. That specific differences of bacteria or bacilli as belonging to different diseases have not been conclusively demonstrated. 2. That these organisms have not been found except in association, either directly or indirectly, with preëxisting disease of a degenerating nature, and that therefore they have not yet been proved to be primary agents of infective disease. 3. That the probability of the origination of phthisis from germs in the atmosphere is contradicted by the immunity of large numbers of persons specially exposed to this agency. 4. It is probable that these germs, reaching internal organs, may be the means of salutary elimination of morbid matter.

The *Planet* indicates the following as a path to distinction: "If you should happen to have no patients, do not let that trifle disturb you in the race for fame. Get some poor monkey by the tail and perform some 'experiment' on him; look up the 'bibliography' of the monkey: copy into your monograph what other men did with monkeys: put their monkeys and your monkey together, and that will make quite a respectable article; the article will be still larger and more imposing if you copy out several 'experiments' performed in London or Paris: put your own name at the head of the whole thing (all the monkeys)."—*Medical Age.*

Bromic Ether in Whooping-Cough.—Dr. Squire recommends a solution of bromic ether in water (1 to 200) for administration in whooping-cough, as well as for angina pectoris and spasmodic pain.—*Med. Record.*

Arnoldoff on Ergotin in Delirium Tremens.—In the *Vratch*, 1882, No. 37, p. 623, Dr. A. Arnoldoff draws attention to the great value of ergotin as a remedy for acute and even chronic alcoholism. From his seven cases, treated by internal administration of the drug, it may be seen that sleeplessness usually disappears after a few first doses, and delirium entirely ceases after 1 grain or 1½ grains of ergotin has been taken. In a case of chronic alcoholism of six years' standing the following mixture was successfully administered: R. Ergotin, 2 grains: bromide of potassium, 1 drachm: water, 8 ounces. A tablespoonful to be taken every hour and a half or two hours. Recovery (that is, disappearance of craving, of insomnia with night hallucinations of sight and hearing, tremor, and sickness) followed after taking 4 grains of ergotin.—*London Record.*

De Sinety on Local Sweating in Connection with Syphilis.—M. de Sinéty has recently had under his care (*Gaz. des Hopitaux*, No. 90, 1883,) a woman, aged 20, suffering from syphilis and gonorrhœa [stage of syphilis not mentioned], and under treatment by mercury and iodide of potassium, who, during the course of these affections, was seized with a sensation of tingling and copious perspiration of the feet and hands. These phenomena disappeared, together with the other syphilitic affections, in twelve or thirteen days. M. de Sinéty agrees with Fournier, that such local sweats are directly connected with syphilis.—*London Record.*

Among the perils to which man is subject by his environment we now have that of flies, and light is thrown upon the noxiousness of one of the plagues of Egypt, to which the race has been unconsciously exposed ever since the days of Pharaoh. Dr. Grassi has published in the *Gazetta degli Ospitali* for July 25th the results of some observations in which he discovered unchanged in the fæces of flies the eggs of various kinds of worms, including the tape-worm, the thread-worm, and the whip-worm, the flies having been fed on food containing these delicacies. Fly-blown meat is thus a source of infection. The fly-trap must be added to the antiseptic armamentarium.—*Boston Medical and Surgical Journal.*

Helenine in Diseases of the Respiratory Apparatus.—Dr. F. Valenzuela reports a number of cases of pulmonary affections in which helenine has given very good results.

1. A man, æt. 46, had chronic broncho-pneumonia which resisted all the usual remedies. Treatment by helenine was commenced to the exclusion of other remedies. In fifteen days there was a very decided amelioration of the disease and of the general health

2. Male, æt. 36. Pulmonary tuberculosis was diagnosed. The patient had a tuberculous spot at the summit of each lung, and was much troubled by a persistent cough and bloody expectoration. Helenine was given in doses of gr. one-sixth in pills, ten every day, for two weeks. At the end of that time, there was very marked improvement in the physical signs and general symptoms.

In private practice, Dr. Valenzuela has excellent results from Helenine. The best effects from it are obtained in whooping-cough. It may be administered internally or by inhalation: the first method is always sufficient. It has a tonic effect on the general system, increasing the appetite, and seemingly aiding digestion—*Bull. Gen. de Therap.*, December 15, 1883.—*Med. News*, January 12.

The Cartwright Lectures for 1884 will be delivered by Prof. Burt G. Wilder, M. D., of Cornell University, at the hall of the Young Men's Christian Association, corner of Twenty-third street and Fourth avenue, New York, on the evenings of February 2, 4 and 6, 1884. The general subject will be Methods of Studying the Brain.—*Boston Med. and Surg. Jour.*

Eucalyptus in Acute Coryza.—Dr. Rudolphi recommends that a few dried leaves of the eucalyptus should be chewed, and the saliva swallowed. Provided the coryza is acute, it may thus be arrested in less than one hour.—*Lond. Med. Record.*

The statue of Liebig, at Munich, has been mutilated by the pouring over the entire left side of the figure of some dark-colored liquid, which has corroded the marble. The perpetrators of the outrage have not been discovered.—*Boston Med. and Surg. Jour.*

According to the *Med. Times and Gaz.*, Dr. Wilson Fox has publicly recanted his views as to the communicability of tubercle by inoculation, holding now the view of Kock and the German school, that it can only be produced from tubercle.

The Micrococcus of Croupous Pneumonia.—Some observations upon the micrococcous of croupous pneumonia have lately been presented to the Physiological Society of Berlin by Mr. Carl Friedländer and Dr. Frobenius, of that city. The micro-organism is characterized and distisguished by the presence of a peculiar mucous capsule which it retains when re-cultivated in gelatine. Inoculation with this "cultivated" material was made into the lung-tissues of rabits, but without effect. Similar injections into dogs, and with still more constancy into mice, produced all the phenomena of genuine croupous lobar pneumonia. In a few cases, inhalation of the material in pulverized form were equally successful.—*Med. Times and Gaz.*

Locomotor Ataxy not Tabes Dorsale.—Disturbances of sensation and disorders of locomotion, apparently absolutely identical with the signs of classical tabes dorsalis, have now (*La France Medicale*, October 30) conclusively been shown to have existed in two cases in which the spinal cord, spinal roots and ganglia were perfectly healthy, but in which the periphernal nerve exhibited the changes ascribed to a traumatic parenchymatous neuntes.—*Lancet, Jan.*

Osteotomy for Bow Legs.—Dr. W. H. Carmalt reports in *The American Journal of the Medical Sciences* for January, 1884, a case of a child of five years, in which there was marked outward curvature of the tibiæ and fibulæ of both legs, and in which he divided the bones, under antiseptic precautions, with excellent result.

One hundred and fifty children are said to be suffocated yearly in England by sleeping with their parents: in Germany parents are not allowed to have children in bed with them.—*Md. Med. Journal.*

Gonorrhœa.—Dr. Logan, of Florida, says: The treatment I have had the most success with, and that which seems to be nearer a specific than any other, is as follows:

R. Calmine, grs. lxxx; powdered kino, grs. xxx; sulph. zinc, grs. x; sulph. morphine, grs. viij; boiling water, Oj. M. Sig. Shake and inject a syringeful every two hours, urinating each time before injection. The injection should be retained two full minutes, then allowed to escape slowly, so as to leave the sediment in the urethra. The kino must be pulverized and dusted through a fine cloth, so as to free it of lumps.

Out of 18 cases treated with the above, there was not a single case in which a cure was not effected inside of 14 days after commencing treatment. Cases seen early in the attack yielded in half that time.—*So. Med. Record.*

Nitrite of Sodium.—Dr. Sidney Ringer writes to the "*Lancet*" to say that the dose of nitrite of sodium should be small, two or three grains, and not twenty, as stated in his "Handbook of Therapeutics." It has been ascertained that, in the cases in which twenty-grain doses were prescribed by Dr. W. T. Law, a year and a half ago, the specimen of the salt used was very impure, containing a large per centage of the nitrate.—*N. Y. Med. Journal.*

Trismus Nascentium, or the Lockjaw of Infants, its History, Cause, Prevention, and Cure; Illustrated by Cases and Post-Mortem Examinations, with a Statistical Table of 229 Deaths.—In an elaborate paper on this subject *The American Journal of the Medical Sciences* for January, 1884, Dr. J. F. Hartigan, supports the theory advanced by the late Dr. Marion Sims, that the symptoms are due to the effects of mechanical pressure on the brain by displacement of the occipital or parietal bones as the result generally of decubitus, and that they may be relieved simply by rectifying this abnormal displacement, often by change of position in lying alone.

Biographical Lexicon of Physicians of all Times and Peoples.—The first two fasciculi of this work, edited by Prof. A. Hirsch, with the assistance of an able corps of co-editors, have just appeared in Germany.

METEOROLOGICAL SUMMARY—DECEMBER. STATION—NEW ORLEANS.

DATE.	Daily Mean Barometer.	Daily Mean Temp'rature	Daily Max. Temp'rature	Daily Min. Temp'rature	Daily Rainfall, inches.
1	30.170	61.7	71.5	51.5	....
2	30.172	62.5	71.0	54.0	....
3	30.190	57.0	65.2	48.2	....
4	30.177	62.8	71.2	52.0	....
5	30.144	67.2	75.0	58.7	....
6	30.057	69.3	75.7	61.5	....
7	30 091	69.0	74.5	65.9	.21
8	30 208	59.3	67.5	54.5	.06
9	30.283	56.0	60.0	50.0	....
10	30.252	55.3	59.9	47.5	....
11	30.263	60.0	66.0	52.7	....
12	30.233	59.1	65.8	50 6	...
13	30.105	65.8	74.0	53.5	....
14	30.189	59.7	68.5	53.5	.01
15	30.437	43.7	53.5	40.5	....
16	30.217	46.3	54.0	37.0	....
17	30.074	51.0	58.0	43.0	....
18	29.955	65.3	72.9	47.3	..04
19	30.123	59.8	68.8	53.5	..82
20	30.267	52.2	55.0	48.0	..30
21	30.243	59.3	68.8	50.8	..06
22	30.302	64.3	70.3	56.1	....
23	30.097	68.3	74.5	59.0	. 03
24	30.034	70.5	75.5	66.0	..33
25	30.029	62.8	68.0	59.0	. 43
26	29.957	61.2	68.5	50.1	....
27	30.245	57.5	65.0	51.5	....
28	30.238	50.5	58.3	40.3	....
29	30.100	60.0	68.7	47.2	....
30	30.034	67.8	76.0	61.3	..41
31	30.038	63.5	67.3	58.5	..77
Sums	93.472	86.8	88.9	63.2	6.36
Means	30.152	60.3	67.4	52.4	....

GENERAL ITEMS.

Highest Barometer, 30.518. 15th.
Lowest Barometer, 29.919. 18th.
Monthly Range of Barometer, 00.599.
Highest Temperature, 76.0. 30th.
Lowest Temperature, 37.0. 16th
Greatest daily range of Temper't., 25.6.
Least daily range of Temperature, 7.0.
Mean daily range of Temperature, 15.0.
Mean Daily Dew-point, 50.6
Mean Daily Relative Humidity, 72.8.
Prevailing Direction of Wind, N.
Total Movement of Wind, 5556 Miles.
Highest Velocity of Wind and Direction, 28 Miles, N.
No. of foggy days, —.
No. of clear days, 9.
No. of fair days, 12.
No. of cloudy days10, .
No. of days on which rain fell, 16.

COMPARATIVE TEMPERATURE.

1873	56.0	1879	59.8
1874	58.8	1880	53.0
1875	61.5	1881	59.2
1876	48.0	1882	54.0
1877	55.5	1883	60.3
1878	51.2		

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	1.79	1879	2.90
1874	3.27	1880	6.45
1875	5.15	1881	6.62
1876	9.57	1882	4.27
1877	4.96	1883	3.47
1878	8.69		

M. HERMAN, *Signal Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM DECEMBER 30TH, 1883, TO JANUARY 26TH, 1884, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia	Total Mortality.
January 5	0	6	25	1	21	157
January 12	0	3	23	2	16	144
January 19	0	5	18	0	13	135
January 26	0	3	25	16	15	165
Total	0	17	91	19	65	601

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NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

MARCH, 1884.

ORGINAL PAPERS.

Myopia.

By STERLING D. KENNEDY, M. D.

The term myopia is used to designate the condition of an eye in which the antero-posterior axis is longer than the focal length of the refractive media. In such an eye parallel rays of light, or the practically parallel rays coming from distant objects, are focused at a point somewhere in front of the retina. This premature focusing might be due either to abnormal length of the eye or to too great power of the refractive media. But as myopia, left to itself, almost always increases to a certain extent, and as this increase is effected through elongation of the eye, it may be considered that this condition is always a factor in causing the defect.

Myopia may be congenital or acquired. It has been established by careful investigation, notably in Germany, that acquired myopia is the result of constant or frequent use of the eyes for near work: further, that the general health may be a cause of predisposition, that position while at work has influence also, and that an hereditary tendency may frequently be traced. Statistics proving these points are within the reach of all, so it is unnecessary to take up space with them here.

In the adjustment of the eyes for near vision there is accommodation and convergence, in amounts depending on the distance of the object from the eyes, and it is found that during such adjustment there is an increase of intraocular tension. I shall endeavor, first, to show that the increased tension and the production of myopia are caused principally by *convergence*, and second, to deduce certain principles to be applied to prevention, and to the arrest of progress as well as to indicate the manner of application.

Accommodation is effected through an increase in the curvature of the surfaces of the lens (the anterior principally). This is a change of form and not of bulk, unless it be that the density is altered. The manner in which the change in the form of the lens is brought about is by no means established. Some physiologists assert that the action of the circular fibres of the ciliary muscle is simply to overcome that of the longitudinal, and that the lens is thus enabled, in virtue of its own elasticity, to assume a more nearly spherical shape. If this is correct, there would actually be an increase of density and a dimunition of the bulk of the lens, and hence a reduction of internal pressure. It has been pointed out by Ivanoff that in myopes there is a great excess of the longitudinal fibres, while in hypermetropes the opposite is the case. These facts are certainly in keeping with, and to some extent in support of, the above theory. Again, drugs that cause spasm of accommodation (eserine, pilocarpine) diminish intraocular tension, while those (atropia, duboisia) which cause paralysis, increase it. None of these drugs materially affect convergence. Now, whether accommodation causes any dimunition of tension or not, it seems fair to presume that it does not cause any increase. The following facts are in favor of this view: In myopia, where accommodation is seldom called into play, but where convergence is often excessive, there is progress, while in hypermetropia, where accommodation is excessive, and convergence never great, there is never even a diminution of the existing defect. Finally, were the increase of tension due to internal cause, there

would be no tendency to elongation; but, on the contrary, a tendency to sphericity, for it is a mathematical fact that a spherical cavity with a given area of boundary surface is capable of containing more than a cavity of any other shape, having the same area of boundary. Statistics show that glaucoma is more frequent in hypermetropes than in emmetropes or myopes. Now, since in normal eyes the antero-posterior axis is slightly the longest, may it not be that the hypermetropia is in some cases the result of the sphericity induced by the increased tension, and that only when sphericity has been attained (since the tunics, though flexible, are inelastic) does the eye give way at the weakest point; *i. e.*, where the optic nerve enters the globe, supported only by the delicate *lamina cribrosa*.

In convergence, however, the action of the internal recti, resisted to some extent by that of the external, subjects the eyes to pressure from without. This pressure must not only give rise to an increase of tension, but must create a tendency to extension in all directions other than that from which it is applied, and especially in directions at right angles to this. The pressure being applied laterally, the tendency to extension is mainly up and down, and antero-posteriorly, but as resistance is least in the last named direction the tendency must be greatest in it. I am not prepared to say whether or not constant convergence might produce a permanent elongation of the eye by change of shape, without the assistance of a pathological process, but even if it could, this elongation would increase, for, as will be shown, myopia is progressive, and whether it be congenital or acquired, always progesses in the same manner—through pathological process. It may not be out of place to state here that what may be termed a pseudo-myopia may be caused by spasm of the ciliary muscle from constant accommodation, and that if unrelieved it may eventuate in elongation of the optic axis or true myopia. Besides giving rise to increase of tension and the tendency to elongation the internal recti in their action exert considerable traction on the eyes, and this with the pressure, if con-

stant, leads to inflammation—most usually to chronic forms of infiltration-scleritis, or of sclero-choroiditis. These inflammations eventuate in atrophy and softening of the sclera, permitting stretching; owing to inelasticity the stretching is permanent, and thus is produced a posterior staphyloma. Alt has shown that in eyes suffering from ciliary or total staphyloma, the same condition of the ciliary muscle exists that is found by Ivanoff to exist in myopia, *i. e.*, great excess of the longitudinal fibres. So it may be that this condition is a partial cause of the inflammation—a conclusion drawn by Alt.

Myopia once existing, as a rule, enforces its own increase. We have seen that it arises from the frequent use of the eyes for near work; its existence creates a necessity for more frequent and closer approximation of work, and hence the conditions that tend its production even in healthy eyes are now increased, while the state of the eyes is already favorable to their action. If the progress of the pathological process is not checked, serious results, besides the mere increase of myopia, follow:—atrophy of choroid, detachment of the retina, liquefaction of the vitreous humor (synchisis), etc., and it frequently happens that in cases where the myopia has increased to 8 or 10 dioptres, changes have occurred which make the most accurate optical corrections powerless to give anything like perfect sight. In rare cases the staphyloma may increase even to rupture. (Alt.)

In regard to the measures for the prevention of myopia, it is necessary to say but little, as these are very generally understood. No near work (reading, etc.) should be done where the illumination is such as to necessitate the approximation of the work to *within* fifteen inches of the eye; and the source of the illumination should be behind and slightly above the worker. The position should be erect, and all positions that favor congestion of the fundus oculi (stooping over or lying down) should be particularly avoided. In places where numbers of persons are working together attention must be paid to hygienic arrangements, lighting,

etc., and the construction of the desks and benches should be such as to make stooping unnecessary, if not impossible. In Germany, where the increase of myopia has been very great of late years, laws have been enacted regulating the construction, etc., of places of public instruction, with a view to these points.

We have now reached the main object of this paper:

ARREST OF PROGRESS.—The simple accurate correction of the myopia, and of any astigmatism that may be present, by lenses that are ordered for constant use, is in some cases sufficient. Where presbyopia is present, it is, of course, necessary to prescribe glasses for reading, based on those for distance; and in some cases, even in very young persons, it may be necessary to give slightly weaker glasses for that use, until accommodation has increased enough to permit the constant use of the full correction.

In many cases, however, it will be found that the myopia increases in spite of the correction, even where instructions have been strictly followed. The best way of treating such cases would undoubtedly be to forbid all near work, for as long a time as might be necessary—but unfortunately this is seldom possible, and we must, therefore, resort to such other treatment as we may.

In view of our knowledge of the causes of myopia and its progress, the following plan is suggested, in the belief that it may, at least in some cases, prove serviceable where absolute rest is not practicable. Since it seems positive that the mischief is caused principally by convergence, we are to enable our patient to do near work without converging. But as he cannot accommodate without converging, we must also remove the necessity for accommodation. In other words we must enable him to work at a (fixed) near point with his eyes adjusted for distant vision—i. e., no accommodation and the optic axes parallel. This is to be accomplished as follows: The amount of myopia is to be accurately measured in each eye separately. From the result lenses are to be calculated which will correct all but 2.50 dioptres in each eye. If the degree of myopia hap-

pens to be less than 2.50 dioptres, a *convex* glass will be required to bring it up to this. With such lenses the eyes will be able to focus perfectly, light coming from an object 40 c. m. distant, without accommodation—since 40 c. m. is the focal length of 2.50 d. These lenses are to be combined with prisms, the refractive angles of which will depend on the distance apart of the pupils.

The calculation necessary to determine what prisms will be required in any case is simple. To make it clear we will take a case in which the pupils are, say 6 c. m. (60 m. m.) apart. Taking our point, 40 c. m. – 400 m. m., from the pupils, and drawing lines from it to the latter, we have formed a triangle, with two sides, 400 m. m. in length, and one side 60 m. m. Now, imagine a third line drawn from the object point to a point midway between the pupils. Our triangle is by this divided into two right angle triangles, with a hypothenuse 400 m. m. long, and one of the sides about a right angle 30 m. m. long in each. From these data it is easy to calculate by a simple trigonometrical process, the angle included between the hypothenuse and the imaginary perpendicular, which angle will express the number of degrees, a ray of light passing in the direction of the hypothenuse must be deflected to be made parallel to the perpendicular. In the case in point it is found to be 4 18′. We must now find what prism will produce this deflection. We know that the amount of deflection (D) that a prism will produce is equal to the refracting angle of the prism (X) multiplied by N—1, N being the index of refraction of the material of which the prism is made. We may express this by the formula $D = X\ (N-1)$ from which follows—$X = \frac{D}{N-1}$. In this case D is 4 18′, (N—1) is .53 for the index of crown glass is 1.53. We then have $X = \frac{4^\circ\ 18'}{.53} = 8^\circ\ 6'$, or sufficiently accurately, 8 . The calculation for the other prism and triangle is of course the same. Prisms deflect towards their bases, hence, since we desire to deflect towards the perpendicular, we order them *base in*.

Now, since the axes of the cones of light, proceeding

from the point to the eyes, become after deflection parallel to the same line, *they* must of course reach the eyes parallel to each other. If the patient whose pupils we have assumed to be 60 m. m. apart was myopic as follows:

R. E. 4.00 D, L. E. 3.50 D, our prescription would be:

R. E.—1.50^{s} D◯prism 8° base in.

L. E.—1.00^{s} D◯prism 8° base in.

It will be perceived that these glasses are not what is called *orthoscopic*. To overcome the weight and bulk of the prisms, the sphericals may be ground with one surface plane, and small prisms of the required degree may be cemented on the plane sides just opposite the optical centres. Canada balsam must be used for the purpose as its index is 1.53 exactly that of the glass. If cylinders are required for the correction of astigmatism, they may be ground on the prisms.

The patient is ordered to use the prism combination for all near work, and is instructed to, as far as possible, keep his work at the proper distance—40 c. m., about sixteen American inches. Should he bring it a little nearer than this, even, the accommodation and convergence called into place, would be in relation, and not enough to do harm. Glasses giving a full correction should be used for distance always. I have made the following calculations which I give for the convenience of those who may be disposed to give these suggestions a trial:

INTERPUPILLARY DISTANCE.	PRISM REQUIRED.	
56 m. m.	7° 32′	(8½°)
60 "	8° 6′	8°
66 "	8° 55′ 45″	9°
70 "	9° 30′	9½°
76 "	10° 17′	10¼°

The odd minutes and seconds are not of practical importance.

Glasses based on these principles might prove useful in presbyopia.

Use of the Ophthalmoscope in the Examination of the Ear.

By S. D. Kennedy, M. D., New Orleans.

Where a specially minute examination of the external auditory canal and of the membrana tympani is desirable, the ophthalmoscope may be used as in the direct method of viewing the eye fundus with great advantage, both as to illumination and magnification. The membrana tympani is to be placed under the same optical conditions as the retina of a myopic eye. This is accomplished by holding immediately in front of the ear funnel (preferably one of Gruber's hard rubber) a convex lens with a focal length, somewhat less than the distance from the lens to the membrane. The membrane may now be examined with the opthalmoscope by the direct method, which will give a brightly illuminated erect magnified image. Of course it will be necessary to place a concave lens, of the proper strength, behind the mirror, and this lens must be changed for viewing the different portions of the canal. This can be conveniently done with any opthalmoscope supplied with a Rekoss disk.

The Relative Practical Value of Podalic and Cephalic Version.

By F. Loeber, M. D.

[Read before the New Orleans Medical and Surgical Association.]

Wherever we look, gentlemen, we see the power of fashion, not alone in dress, but also in customs, science and even in religion. The science of medicine is not exempt. One of its branches particularly, Gynæcology, has been during the last twenty-five years the most extravagant in this respect. The different modes of treatment and instruments recommended for one and the same disease are so numerous, and often so contradictory to each other, that, we may exclaim with the student in Goethe's Faust:

> "So doth all this my brain confound,
> As if a mill-wheel there were turning round."

One of these fashionable methods of treatment, although

not new, only resuscitated and slightly modified, is cephalic version, or turning by the head.

By turning we mean a manœuvre by which one of the poles of the long diameter of the child is brought into the brim of the pelvis: the long diameter of the fœtal ovoid being thus made to correspond to the long diameter of the uterus. Two varieties of turning may therefore be practiced: these are turning by the head, or, as it is generally termed, cephalic version, and turning by the feet, or podalic version. (Leishman's midwifery.) These two modes of turning are practiced for the purpose of achieving two distinct purposes.

1st. An absolutely unfavorable position in which delivery of the child is impossible, is converted by it into a favorable one, in which position a natural delivery is possible.

2d. An otherwise favorable position is changed into a seemingly unfavorable one, in which position, however artificial, delivery may take place; or, in which the natural course of delivery is facilitated.

In the first case turning is the only object we wish to attain; in the second case turning is the only means by which we can attain our object. For instance, we all know that a full grown fœtus cannot be born alive and with safety to the mother, in a transverse position. To enable delivery to take place, we must change the transverse position into a longitudinal one. In this case, version is our only object. As soon as a longitudinal position is had, the conditions for a natural delivery are obtained. It is altogether different in a case of placenta prævia, with the head presenting. In such a case it is often necessary to deliver as quickly as possible to save mother and child: and although the position of the child is the most favorable one, still it may be impossible to apply the forceps for some reason or other; we are forced to change the head presention into a foot presentation: because we are thus able to deliver quickly by making traction by the feet. Version in this case is the means by which we intend to attain our

object. We aim to perform delivery by traction on the lower extremities, and version therefore was only a preparatory operation. We do the same in a moderately contracted pelvis. We change a head presentation into a foot presentation, because the head in this position goes more easily and quickly through the pelvis, and for that reason does not endanger the soft parts of the mother by long continued pressure. Version in this case is made not because the child cannot be born, but because the chances for mother and child, by changing the position, are more favorable.

Observing that the greatest number of children are born with the head presenting, and that this position gave the most favorable results to mother and child, it was assumed that this position was the only natural one. This assumption led to the practice of making cephalic version in all cases presenting any other part of the fœtus. Cephalic version played an important part in the earliest days of obstetrical practice of all nations. The Mexicans, for instance, commenced to knead the abdomen of the woman in the seventh month of pregnancy, to secure the right position of the child (head presentation), and if they did not succeed, the woman was elevated by the feet, and was shaken until the head of the child presented. The Japanese were more advanced in their mode of turning by external manipulations. They made use of seven modes of kneading to rectify the position; the sixth was to rub with both hands the abdomen from the pelvis to the navel. With all the European nations cephalic version also played an important part from the commencement of their obstetrical practice through the whole classical and middle ages. The Arabian school went so far as to teach that in case sufficient room was not given for making cephalic version, to amputate parts of the body of the child until sufficient room was obtained to bring the head down.

Podalic version was first *suggested*, *not practiced*, in the year 1561 by Pierre Franco, in a work devoted chiefly to surgery, and was subsequently adopted and practiced by

Paré, Guillemeau, Mauriceau, Baudeloque and La Chapelle, to the complete exclusion of cephalic version. During two centuries only the masters of obstetrical science were acquainted with cephalic version, and occasionally made use of it; the majority of physicians only practiced podalic version, and had either never heard of it, or had entirely forgotten it. When, therefore, Solayres in France, and Boer in Germany, in the later years of the last century, demonstrated the value of cephalic version in certain cases, it was received as an entirely new operation.

I do not intend to give an analysis of the different methods of version and their applications. I shall only enumerate them so as to recall them to mind:

1st. Position. The woman is put on that side to which the head of the child is directed.

2nd. Wigand's method. Turning by external manipulations alone, without introducing the hand or finger into the vagina.

3rd. Dr. Robert Lee's method. The opposite of Wigand's; to effect turning by introducing two fingers, or the hand, into the completely dilated os, and bearing upon the parts presenting and successively pushing aside those parts which come opposite the os, until ultimately the head or feet are made to present, or are brought within reach of the fingers and secured.

4th. Braxton Hick's method, combining external and internal manipulations (Wigand's and Lee's methods combined).

These are the principal methods in use to make either podalic or cephalic version. The question now—and the object of my paper this evening—is, what is the relative value of podalic and cephalic version in obstetrical practice?

Sometime ago a confrere of ours, a member of this association, read a paper on cephalic version, and from time to time afterwards reported cases in which cephalic version had been made with excellent results, even in the most desperate cases and most difficult conditions. Statistics,

also, were given so damaging to podalic version that I felt miserable for ever having performed it, and although I had been successful in my operations, I felt happy that by luck only I had been spared the mortification of being the murderer of every child that I had delivered by podalic version! The only defence I could make for myself in such a case was, to plead ignorance of the facts and throw some of the blame on the shoulders of my teachers. They never had handled the subject of cephalic version in such a manner and from such a point of view as was done in that paper. I promised myself, then and there, never to perform podalic version again.

After I had been shown the ease of performing another operation with such certainty of success, to perform an operation again by which it was only a lucky chance if mother and child survived, was out of question. As luck would have it, a few weeks after the lecture I was called to assist a woman already in labor twenty-four or thirty hours, attended by a midwife. Examining the woman, I found a transverse position of the child; waters gone ten hours, uterus firmly contracted. My first impulse was to make podalic version *tuto, cito et jucunde*, according to my former teaching; but remembering the terrible statistics of podalic version, the dangers to mother and child, I hesitated and listened for the sounds of the fœtal heart. I could hear none. If the child was not dead it was certainly very weak and never would survive the ordeal of podalic version! Cephalic version, so it is said, never endangers the life of the mother, and hardly ever the life of the child; the act of turning is mere child's play by the method of Braxton Hicks. I sent for chloroform, not on account of the difficulty of the operation, but more on account of the woman, who was afraid that she would suffer pain.

I put the woman under the influence of chloroform, and proceeded to make cephalic version by the Braxton Hick's method. To my utter astonishment, the child did not move. The head of the child was lying to the right of the mother, so with my left hand in the vagina pushing the

shoulders of the child to the left of the mother and my right hand elevating the body of the child and pushing it upwards, from the outside, the child did not move ; it was firmly held by the contracted uterus. I was mortified ; on account of my awkwardness—sheer awkwardness on my part that I could not succeed in making cephalic version by the bipolar method. The woman now commenced to move about, the midwife, to whom I had entrusted the chloroform, was afraid of it and did not give it sufficiently. I had to desist from the operation and had to give chloroform. Again I tried but did not succeed. What to do now was the question. Fortunately my buggy was waiting for me, and knowing that I could find my friend the author of the paper on cephalic version at home, I went there as fast as my horse could carry me. The gods were with me ; I found him at home and telling him my misfortune he at once consented to accompany me and show me how to do it. He, after a short examination, pronounced it a very unfavorable case for cephalic version ; ergo, "a good one for podalic version !"

Still we proceeded to deliver by cephalic version. Administered chloroform to its fullest extent so as to relax the muscles completely. Once I became frightened by the condition of the woman, but my friend assured me that, to make cephalic version in such cases, it was absolutely necessary to bring the patient profoundly under chloroform so to relax every muscle. We went on, I had to assist occasionally to make external pressure and to hold the head of the child firmly down after it was brought over the brim of the pelvis to prevent it from slipping away to its former position, till the forceps were applied. After some time, my friend succeded in applying the forceps, and now the pulling commenced, no labor-pains to assist, the woman profoundly under the influenee of chloroform. After an hour's hard work, both of us saturated with perspiration, we succeeded in delivering a dead child, *by cephalic version*. The woman, pretty nearly exhausted, had irregular breathing, artificial respiration had to be made, and stimu-

lants had to be administered freely, but, gentlemen, it was an "unfavorable case for cephalic version."

I could not help thinking that cases in actual practice often present themselves which are quite different from those on paper. Since the time this case occurred, three cases of transverse position occurred in my practice, but these were *favorable* cases, and I made cephalic version with perfect ease and good results. Ten years have passed since that time, medical journals have often and most favorably commented on the operation of cephalic version—the beau ideal of every obstetrician. Every text book gives the mode of making cephalic version and its indications; some of them speak very enthusiastically about it. What, then, is the reason, that if we look over the medical reports of different cities and countries, we find podalic version made hundreds of times—cephalic version comparitively seldom? Or, still better; ask a brother practitioner, one with a fair obstetrical practice, how many times he has made cephalic, and how many times he has performed podalic version? I am sure, he will say that he has made podalic version fifty times, cephalic three or four times, or not at all. What is the cause of this? Is it indolence; or, is it a cringing reverence for the old and venerable? Neither. We have to look for the cause some where else. No one can deny that however correct cephalic version may be theoretically, practically it is uncertain and difficult. On the other side, we have podalic version, by which operation a less favorable position of the fœtus is produced, but it excels by its certainty and promptness in execution.

The greatest drawback to cephalic version is that it is only useful and can be employed in only those cases in which we wish to make a correction of the position. In all cases in which delivery has to be performed at once, it cannot be employed; for instance, if eclamptic convulsions would set in, no one would think of making, in a transverse position, cephalic version and applying the forceps afterwards. Every one would make podalic version and

deliver quickly, by making traction by the feet. Placenta prævia, with more or less hemorrhage, also demands podalic version; we have no time to make cephalic version, apply forceps and extract the child. With the feet down, we have it in our power to make traction and deliver at once. Accidents may happen during the time of making cephalic version, or after it has been successfully made, which make podalic version absolutely necessary, *e. g.* prolapse of the cord. Any one who has had some experience in replacing the cord, will certainly agree with me that generally, in spite of all our efforts, the more we replace it the more it comes down. One of the rules laid down for making version, is not to make cephalic version if we should suspect such an accident to occur. I would like to know how we are able to foresee it? Another rule is that the child shall be still movable, the membranes intact, or ruptured only a short time. These are conditions which we very seldom find. The doctor generally arrives at the bedside long after the waters have been discharged, the uterus firmly contracted and the presenting part pressed into the pelvis, generally an arm protruding, not prolapsed by itself, but pulled down by the midwife, who, thinking that she has a foot, pulls down the arm, and then only, seeing her mistake, sends for a doctor—a person generally not very agreeable to a midwife. A normal size of the pelvis is another condition for making cephalic version.

In a moderately contracted pelvis, cephalic version is out of the question. Furthermore, in making it, it is desirable, though not absolutely necessary, that the os uteri, be perfectly dilated, to be able to find the head in the pelvis. In cephalic version the turning of the child is generally not so very difficult, but to find the head in the pelvis, and then keep it in position, is the great trouble. In podalic version this cannot happen; if once the version is made, the position is final, even if we have no regular labor pains. This is a decided advantage over cephalic version in which labor pains are very desirable, if not absolutely necessary. We all

know how much we can rely on labor pains: we have pains when we do not want them, and have no pains when we want them. By the aid of the forceps we are enabled to overcome this difficulty. Podalic version is independent of all this. All that we want is a pelvis large enough to allow delivery in a natural way, and an os dilated not more than is needed to make cephalic version.

The very favorable statistics in regard to mother and child are always advanced in favor of cephalic version, and compared with the apparently unfavorable mortality of the fœtus in podalic version.

I must confess, the figures are, at first sight, striking. According to these tables not even ½ per cent. of mothers die by cephalic version; the number is above 6½ per cent. by podalic version. The difference in the mortality of children is still more frightful, not quite 25 per cent. having died by cephalic and about 65 per cent. by podalic version. Figures will tell, but I think it would be a wrong proceeding if we would decide the comparative value of the two operations by these statistical tables. These 6½ per cent. mothers and 65 per cent. children, victims of podalic version, contain all those cases where head presentations had to be changed into foot presentations, as in placenta prævia, which occurrence, by itself, endangers the life of the mother and increases the mortality. Further, all those cases in which, in a contracted pelvis, craniotomy had been performed, and in which podalic version had to be made to be able to deliver; also those unfavorable cases in which, long before the arrival of the doctor, the membranes ruptured and shoulders were deeply pressed down by convulsive contraction of the uterus: all cases which give beforehand an unfavorable prognosis. They contain, furthermore, all those cases in which (and this is well worth considering), *cephalic version was vainly tried, and the operator was forced to make podalic version.*

When we take all this into consideration, these statistical tables will have quite a different meaning, and if we in-

tend to reach a standard, by statistics, by which to decide the comparative value of these two operations, only cases of transverse position must be considered as appropriate for cephalic version. If we select in this manner a certain number of cases, and in one-half of them make cephalic, in the other half podalic version, I am convinced that the latter would give us results which would prove without doubt its superiority. Under these conditions podalic version is so easily and quickly made that the small disadvantage it has is richly compensated by its facility of execution, against the difficulty and uncertainty peculiar to cephalic version.

Observations on Hæmorrhagic Malarial Fever.

By J. H. McCaleb, M. D., of Pointe Coupée.

The increasing prevalence of this very fatal form of malarial disease throughout the South, and to no small extent the alluvial districts of Louisiana, is indeed alarming: and the various conflicting and many absurd theories that are to be gleaned from the current literature of to-day on the pathology, and especially the treatment of so grave an affection, are, to say the least, perplexing, and are calculated to launch the inexperienced practitioner at sea when, for the first time, he confronts this most serious form of malarial trouble.

The disease, as is well known, occurs in individuals who have been long suffering from malaria cachexia. The paroxysm is ushered in by a severe rigor, followed by fever of more or less elevation of temperature, excessive nausea and vomiting, great thirst, and the skin and the conjunctivæ in a few moments, from the onset of the paroxysm become of a bright yellow hue. The entire nervous system is in a condition of extreme irritability, and the jactitation and suffering, in the great majority of cases, is intense, and if not speedily relieved eventually ends in prostration and death—hiccoughs and exhaustion ending the scene. The so-called hemorrhage occurs from the stomach, intestines,

or kidneys, but the great majority of cases from the kidneys alone, the urine being of an intense bloody appearance. If the fever is of the intermittent or remittent type, the hemorrhage partakes of the same character. The intense yellowness of the skin is said to be due to a disintegrated condition of the red blood corpuscles—a hæmatogenous jaundice. No lesion of the kidney, strange to say, has been discoverable by post-mortem. The hæmaturia is accounted for in this way: the blood cells in their shriveled and hardened condition are pressed through the weakened membranes of the kidney and voided with the urine.

The mind, in most of the cases that have fallen under my observation, generally has been clear throughout. Vomiting and thirst are almost continuous, the matter vomited sometimes having a blueish appearance, which is said to contain bacteria in abundance. How is it possible for medicines to be administered by a stomach while in so extreme a condition of irritability, and results expected, is impossible to conceive!

That invaluable little instrument, the hypodermic syringe, is the only weapon with which the physician can hope to combat this most serious malady with any degree of accuracy and satisfaction.

The remarks that will presently follow on the treatment of this disease have been deduced from careful observations, and the writer has been induced to pen them from having recently read in *Gaillard's Medical Journal* for September, 1883, a very luminous and interesting, but on the whole very unsatisfactory article, as regards anything definite arrived at either pathological or therapeutical, entitled "A Report on Hemorrhagic Malarial Fever," by D. R. Wallace, M. D., Waco, Texas. As an example of the general tenor of the article I quote the following:

"It were much to be deprecated, that in the treatment of this, at the best, fatal affection, there is so little consensus of opinion or uniformity of practice. Of malarial

origin, and attended with what he conceives to be great biliary derangement, one practitioner insists upon the exhibition of mercurials even to the extent of obtaining their constitutional effects; while the other reads in the spanæmic condition unmistakable contraindications to their use, deprecates them as defibrinizers and spoliatives, and will have it, so far as the liver is concerned, its only effect upon that important viscus is to diminish the secretion of bile; while a third party confines all his hopes to the free use of opiates to quiet irritation existing in the nerve centres; the fourth is quite sure that their only effect is to dry up the secretions, albeit so necessary to the preservation of the economy to prevent fatal toxæmia already imminent.

In a miasmatic disease endowed with periodicity (however masked), the only rational expectation of a case, urges another, is in antiperiodics, and where shall we find anything like, anything second to, the inevitable sulphate in all the domain of therapy? "Hold!" cries an authority quite as respectable, and claiming much experience in the treatment of the disease, "do you not see that the whole nervous mechanism is ajar already, and do you not know that it is but adding fuel to fire to give quinine under such circumstances; and besides, do you not forget that the cases are not few in which your favorite salt has produced this identical disease?" "Iron, iron," insists an authority, "as an hæmostatic, iron for the spanæmia to furnish this necessary constituent for the hæmatin in the red corpucles so indispensable to intra-oxygen, and for want of which the animal heat, failing to be generated, is declining." "By no means," returns his neighbor practioner, "it is as clear as the sun in mid-heaven, that your ferruginous preparations are of no worth, the stomach being in such a condition that, however needed, they cannot be introduced into the blood; moreover, your much lauded muriated tincture will only serve to irritate still more the stomach, and prevent, as incompatible with it, the exhibition of a remedy of more worth than all others besides." "My entire reliance," puts in a practitioner over yonder,

"is upon the free use, internal and external, of turpentine." "It may be good," replies one over here, "but never having seen any indication for its use, have not tried it." "Use acids freely—lemons, lime-juice—they are grateful to the patient and antidotal of malarial intoxication," confidently exclaims Dr. A. "Do no such thing, the idea is preposterous," impatiently retorts Dr. B., "the stomach is full of them already, use anti-acids, alkalies." Bewildered by such, not diversity simply, but contrariety of opinion, the conscientious medical man, anxious to give his patients suffering from this, as from all other diseases, the benefit of all that is known in the healing art, turns away in disgust. Possess your spirit in patience, friend. It is no worse in this than in most other diseases. It only seems so, because in a new disease draped in obscurity, you are over anxious for certitude. Discard the expectation. It belongs not to our art. Specifics are but the dreams of distempered imaginations. Our bodies are too fearfully, too wonderfully made for any well-informed medical man, in the present condition of our science, to think twice of the possibility of specifics. The empiric, and he only, naming the disease, plies his specifics. An age of adventure, fertile in experiments and daring in their application; an age of mental activity and intellectual independence; an age in which the "Marcus dixit, ita est," paraphrased:

> "Did Marcus say 'twas fact? then fact it is;
> No proof so valid as a word of his,"

has been left in the past—has played out. In medicine, as every other department of human effort in our times, men must act for themselves, "pro re nata."

If this is a disease purely of malarial origin—and such seems to be the conclusion of all who have had the opportunity to witness it in all its phases, have we not, I would like to ask, a *specific* for all forms of malarial poisoning? Can any deny that the sulphate of quinia, whatever may be its modus operandi, is not absolutely antidotal to malarial toxæmia? The trouble in the administration of

the drug in this disease exists in this fact—the drug, although powerful for good in one respect, is powerful for harm in another: although antidotal to the poison existing in the system, it has other effects, when administered to a patient whose nervous system is already in a condition of extreme irritability, which are but adding fuel to fire. Hence it is clear the system must first be prepared for the reception of the antidote.

The logical indications for the treatment of this disease are clearly:

To alleviate the excessive gastric and nervous irritability.

To eliminate effete matters from the system, correct morbid secretion, and relieve congestion

To neutralize the poison in the blood.

To build up the system and obviate a tendency to asthenia.

The hypodermic administration of the sulphate of morphia in this disease is indispensable; on the wakefulness and cerebral irritability during the fever its effects are simply charming; it induces a delightful diaphoresis; relieves almost instantly the irritability of the stomach, controling vomiting for several hours, thereby allowing time for the absorption of other remedies, and modifies to a most satisfactory extent the nervous effects of quinine. Its administration in the early stages might be preceded by large alkaline drinks, given warm, to induce free emesis in order to wash out the stomach and correct any acidity that might be present; after free emesis induced in this way, a hypodermic injection of from one-sixth to one-third of a grain of the sulphate of morphia (Magendie's solution), never has failed, in the writer's experience, to afford immediate relief from the excessive jactitation and vomiting, placing the patient in a most comfortable condition.

The hemorrhage of this fever is purely the local expression of a constitutional affection, and the hemæturia is but an effort of the kidneys to eliminate a *materies morbi* from the blood, and, if the little that is absolutely known of the

pathology of this disease be correct, diuretics, as advised by some, are clearly contraindicated. The only channel to which we can appeal with reliance for the elimination of effete matters is the intestinal tract, and calomel is the cathartic that can be employed with certainty for that purpose; by stimulating the secernents and exhalants it corrects morbid secretion, relieves an engorged portal circulation by pouring out bile from a congested liver, and to a large degree relieves the irritability of the stomach. Given in large doses, frequently repeated, five or ten grains every two hours, there is no probability of ever producing its constitutional effects, a circumstance by no means to be desired. If its cathartic effects are not sufficiently prompt, mild saline cathartics should be administered frequently in small doses, or large saline enemas might be resorted to. No fear need be apprehended from hypercatharsis, the morphia subcutaneously obviates such tendency; and the fact is, the more copious the evacuations the sooner the patient is permanently relieved, and I have never seen any but the most gratifying results follow free catharsis continued almost to a diarrhœa. A fly blister applied over stomach and liver does much good; it seems to break up a train of morbid associations by relieving congestion of the organs over which it is applied.

The administration of quinia should be commenced as soon as possible. About one or two hours after the second dose of calomel has been given, and the nervous system has been calmed by morphia, five or ten grains may be given in capsule every two or three hours, until twenty-five or thirty grains have been taken; if its administration in this way should induce nausea, and the vomiting should become too frequent to allow time for its absorbtion, it should be given hypodermically. Twenty-five grains of the sulphate of quinia are added slowly to a concentrated solution of tartaric acid (f℥j) and the quinia is completely dissolved. Ten minims should be given every two or three hours. The hypodermic needle being driven deep into the muscle, there is but the slightest possibility of an abscess resulting.

Under all circumstances the patient should be kept as quiet as possible—during the administration of the quinia particularly—and should he become restless, small hypodermic injections of morphia give instant relief.

This is purely a malarial disease, and *the specific* for all forms of malarial toxæmia is the only remedy that can be rationally employed as a curative agent, but the writer has witnessed the most *disastrous consequences resulting* where the administration of quinia has not been attended with the precautions to obviate its bad effects, which has been the endeavor of this article to elucidate.

Soon after copious evacuations have been obtained from the intestinal canal, and the fever abates and vomiting ceases, which rarely fails to be the case, although a certain amount of nausea may continue for some time, small doses of beef-tea, or milk, combined with a little brandy, may be ventured upon at intervals of one or two hours, or oftener if the stomach retains it well. After the stomach is able to receive food the tinct. ferri chloridi, in ten to thirty drop doses, considerably diluted, and given after eating three or four times a day, rapidly restores strength and color. The tinct. cinchonæ comp. is also highly indicated, given before eating and continued for several days during convalescence.

As convalescence approaches, the fever ceases, the urine becomes clear, and the skin and conjunctivæ lose completely the intense yellow cast. Nausea is about the most lingering of all bad symptoms, but as the patient regains appetite convalescence becomes rapid.

In conclusion, I cannot do better than to again quote from our respected confrére of Waco:

"* * * * * * * In this, as in many other affections, the cry not seldom comes: Ho! here is the way; walk ye in it. The cool *nil admirari* is as becoming the sensible physician on such occasions as it is philosophical in all the walks of life. No sensible physician is misled for a moment by these *ignes fatui*, whatever their vulgar glare. The true medical man,

who has the root of the matter in him, will treat any and every case according to the great recognized fundamental principles that constitute the basis of the healing art. Not the "sea-weed" of the Roman satirist is "viler" than any and every attempt to prescribe a fixed line of treatment for a given disease. Ice, acidulated drinks, effervescing mixtures, small doses of calomel and morphine—the latter, especially, where there exists much centric nervous irritation—to quiet the stomach: sponging with cold water; the cold douche, followed by free use of turpentine and other stimulating liniments and epithems to restore equilibrium of circulation: such quieting remedies or measures as may seem most eligible in each particular case—for no two require precisely the same—to quiet extreme restlessness and jactitation. Such treatment addressed to the *primæ viæ* as special indications may point out, and finally in those cases in which there exists well-marked periodicity, the timely and unsparing exhibition of the sulphate of quinine constitute a brief outline of a treatment such as it is believed will be found to commend itself to the recognition of the well-informed physician."

Opium Poisoning.

Reported by JAMES LEAKE, Resident Student, Charity Hospital.

The following are notes taken of a case which came under my observation during July, 1883. Nellie Gray, 37 years of age, a white woman of intemperate habits—I afterwards learned from her that she had been enjoying perfect health previous to admission in hospital—July 17th, at 7 P. M., after partaking of a very hearty supper, took 20 grs. of the sulphate of morphia for the purpose of committing suicide. One hour afterwards she was brought to the hospital in a semi-unconscious condition: pupils contracted; respiration 14: pulse 90; face slightly cyanosed. She was seen by assistant house-surgeon, who ordered atropiæ sulph., grs. $\frac{1}{60}$ by hypodermic injection. By pinching and electric shocks, she was aroused sufficient to swallow a cup-

ful of hot water containing a teaspoonful of mustard. This immediately produced vomiting of large "chunks" of meat and, probably, some unabsorbed morphine. After the stomach was thoroughly washed out, she was given large quantities of black coffee. The atropia was repeated in doses of gr. $\frac{1}{100}$ every 20 or 25 minutes until the pulse responded. It required seven doses to produce the desired effect. During this time the patient was very sleepy, but could be aroused, at first, by pinching, switching, etc. This soon lost its effect, and we had to resort to the galvanic battery. The electricity acted well and was kept up constantly until 11 P. M.; after that time, it seemed to be losing its previous good effect. The patient did not respond as readily. About this time it was noticed her temperature was slightly elevated; by 12 M., her temperature was 104.4 F., in the axilla; pulse 160; respiration 20. Patient in deep coma; seems suffering from "electric exhaustion." The strongest current (24 cells, McIntosh's battery) failing to arouse her. Condition during next hour was, respiration same, except more sterterous; pulse faster. At 1 A. M., thermometer placed in axilla for a few minutes marked 106 F. Pulse now 175, both on the increase—coma most profonud. All reflex-excitability entirely abolished. Seeing the patient would die in a short while, from excessive heat if left alone, determined to use ice; with the assistance of Messrs. Blanc and Artaud, I applied a bag of ice to the head, rubbed ice along the spinal column and sponged the surface of body with ice-water. In 15 minutes the temperature was reduced to 103 F.; pulse 156; respiration 18. Temperature remained about the same until 2 P. M., when the ice was again used. At 2:30 the temperature was 101.8 F.; while rubbing the patient she opened her eyes and asked for ice-water—3:55. Temperature 102 F. Another application of ice. At 4:30, her skin was moist and pleasant; temperature 98; pulse 140; respiration 16. She again asked for ice-water, and vomited it. Answers questions rationally. I left her sleeping at 5 A. M.

During the next two days her temperature remained at 78 °F. She left the hospital July 20, 1883.

The interesting points in the above history are: first, the marked elevation of temperature; and, secondly, its rapid reduction by the use of cold. My idea was that the rise of temperature was a result of nervous depression induced by over-stimulation with electricity, and that the cold acted by the abstraction of heat, and as a *new stimulant* upon the supposed "heat centre."

Note on Some Recently Suggested Delicate Tests for Albumen.

Read before the Philadelphia County Medical Society, December 19, 1883.

By JAMES TYSON, M. D.

Most of the members of the Society are probably aware that recently several delicate tests of albumen have been suggested by different observers. Among them are:—1. A saturated solution of picric acid, by George Johnson; 2. Saturated solution of ferrocyanide of potassium after free acidulation by citric acid, suggested by Dr. Pavy; 3. Standard solution of potassio-mercuric iodid, suggested by Tauret,* after acidifying the urine by citric acid; 4. Equal parts of a saturated solution of sodium tungstate (1 in 4), saturated solution of citric acid (10 in 6), and of water; 5. Acidified solution of potassio-mercuric iodo-cyanide. The last two were suggested by Dr. George Oliver in the *Lancet*, Feb. 3, 1883. To complete our list of available tests, we may add:—6. The ordinary heat and acid test; 7. The nitric acid test, by Heller's overlaying method; and 8. The acidulated brine, suggested by Dr. Roberts, of Manchester, England, and consisting of an ounce of hydrochloric acid added to a pint of water, saturated with common salt, and filtered.

The whole subject of these delicate tests has been gone over by Dr. George Oliver, of London, who has published the result of his labors at various times in the London *Lan-*

* Mercuric Chloride, 2·7 grains; Potassium Iodide, 6·4 grains; Distilled Water, 100 c. c.

cet, early in 1883, and more recently in a little volume of fifty-four pages, published by Lewis, of London.

As all of the tests which are not distinctly acid require the previous acidulation of the urine, Dr. Oliver has modified the picric acid solution by adding two drachms of citric acid to one ounce of the solution.

Leaving out the potassio-mercuric iodo-cyanide as a solution troublesome of preparation, Dr. Oliver's results as to all the other tests just named are as follows:

Adopting Heller's method of overlaying the test solution by the urine (all of them as above prepared are specifically heavier than ordinary urines, while the pure picric acid solution is lighter), ONE PART OF ALBUMEN may be detected in

PARTS OF URINE.		TESTS.
20,000	by the	Iodo-mercuric, Picric, Tungstate,
10,000 12,000	by the	Ferro-cyanide, Acidulated brine.
6,000 to 7,000	by the	Heat, Nitric acid.

I have carefully repeated Dr. Oliver's testings, and have arrived at results which, while not identical, may be said to be practically the same—except, perhaps, in the case of heat and acid combined, which, used in the manner directed in my book "On the Examination of Urine," I find decidedly more delicate than the pure nitric acid, and more delicate than the acidulated brine solution. So, also, I do not find the sodium tungstate solution quite as delicate as the picric acid and the potassio-mercuric iodide; but they may be placed in the same category. As the result of this experience, it appears to me that the use of nitric acid may be altogether substituted by the acidulated brine, as a solution at once more delicate and, on account of its non-corrosive properties, altogether more satisfactory to manipulate.

In the *Medical News* for October 27, 1883, Drs. Charles A. Cooke and Ralph B. Watkins, resident physicians in

the Bay View Hospital, Baltimore, published a paper on the "Value of Picric Acid as a Test for Albumen," in which they prove that the urine of persons taking six grains of sulphate of quinia or sulphate of cinchonidia daily will invariably give a precipitate with picric acid, nine or ten hours after the administration. Also, that solutions of sulphate of quinia and of cinchonidia containing $\frac{1}{120}$ grain gave a decided precipitate, and one containing $\frac{1}{240}$ of a grain an appreciable precipitate.

With a view to testing these results, I tested my own urine on a given day with picric acid, and found no response. On the following day I took 22 grains of sulphate of quinia in three doses, taking the last dose at 6:30 P. M. The urine passed at 8:30 P. M. gave a beautifully distinct white line, when overlaid by a pure picric acid solution. So also did the urine passed at 9 A. M. the next day; but that passed at 3 P. M. did not respond. I also found that a solution of sulphate of quinia containing $\frac{1}{100}$ of a grain to the fluid-ounce responded similarly.

I then repeated the experiments with the remaining tests, and found that the potassio-mercurio iodide gave identical results with the picric acid solution, *but the sodium tungstate and ferrocyanide of potassium solutions did not*. So that we shall have in these two test solutions, and particularly in the sodium tungstate, a test solution more delicate than the heat, acid or brine, which is not open to the objection of precipitating quinine in solution.

Picric acid has also been shown by Dr. George Johnson to precipitate artificially prepared peptones. And the same is true of potassio-mercuric iodide and sodium tungstate: and as peptones have been shown to be present in a considerable number of urines, they must be admitted as possible sources of error, the exact importance of which is as yet to be determined. The ferrocyanide solution does not precipitate peptones, but, in common with the others, occasionally precipitates amorphous urates. But these, behaving precisely like the amorphorous urates thrown down in the Heller test by nitric acid—that is, they form a smoky

cloud rather than a distinct layer, and are easily dissipated by a moderate heat—need not be a source of error. An excess of albuminous urine dissolves the precipitate formed by picric, but this need not be a source of error. It is said, too, that potassium salts are precipitated. But, so far as we know, no other agencies likely to be found in urine can lead to error; so that, if we remember to eliminate quinine as a source of error, the picric acid solution, acidulated with citric acid, is still an available test of great delicacy, which is further recommended by its cheapness and easy preparation; although, so far as our present knowledge goes, the sodium tungstate solution is the best, and least liable to cause error.

Discussion of Albumen Tests.

DR. DULLES: The error caused by the precipitation of quinine by picric acid may be corrected by adding nitric acid, which dissolves the quinine precipitate, but not that of albumen. Early in this year, my attention having been attracted to the articles of Dr. Oliver, of Harrowgate, England, in regard to his "test papers," I wrote to him, asking some information about them. In reply, Dr. Oliver has been kind enough to send me a set of these papers, with the request that I would report the result of my experience with them. As soon as they came to hand, I instituted some tests to see whether they could be safely trusted to take the place of the old-fashioned boiling and nitric acid tests for albumen. The result of my investigations was to lead me to conclude that they could not. This opinion rests upon the fact that I found the test-paper to react, and indicate the presence of albumen after I had removed all that was possible, by careful and thorough acidulating, boiling and filtering. I found that albuminous urine thus treated, and no longer giving a reaction to nitric acid or renewed boiling, did react in the presence of certain of Dr. Oliver's papers, though not of all. Some months later I communicated this objection to Dr. Oliver, who replied with a statement that the process relied on to get rid

of albumen was not to be depended upon, and gave his own observations, as follows: "(*a.*) Urines which afforded no precipitation with the test-papers were charged with ov-or serum-albumen, and were then boiled carefully, acidulated by acetic acid, and filtered through two thicknesses of Swedish filter-paper. The perfectly clear filtrate afforded a cloud (as when a small quantity of albumen is present) by the test-papers. Re-boiling, however, produced no further opacity, and strong nitric acid afforded negative evidence. (*b.*) Pure serum-albumen was dissolved in distilled water. After boiling, etc., as above, the clear filtrate, in which nitric acid gave no proof of the presence of albumen, produced a cloud by the test-papers, though the latter, of course, afforded no such deposit in distilled water only. (*c.*) Albuminous urine treated in the same way gave precisely the same results." Dr. Oliver concluded that "a very small quantity of albumen can remain in solution, even though the albuminous liquid is subjected to thorough boiling; and though this trace of albumen cannot be discovered by strong nitric acid or by reboiling, it can be brought to light by the other tests." It would certainly appear from Dr. Oliver's experiments that, in this conclusion, he is right; but there is still an objection to these test-papers, founded upon what is claimed to be their chief merit, namely, their delicacy. I am afraid that a test which may disclose the presence of very minute quantities of albumen in the urine may increase the number of alarmists and of the alarmed about "Bright's disease." If this objection can be obviated by the diffusion of common-sense views in regard to the true significance of occasional small proportions of albumen in the urine, I think much might be gained by employing this ingenious and handy way of testing, proposed by Dr. Oliver. (The package of test-papers was passed round for inspection among the members of the Society.)

Dr. John Aulde: Having given this subject some study and investigation recently, I may be able to add something to what has already been said by the gentlemen who have

preceded me. That a saturated solution of picric acid is a delicate test for albumen in the urine, none will question; but there is an objection to it, and the same may be said in regard to nitric acid, namely, that it stains the hands and clothing of the operator. The points in its favor are, that a solution can be easily prepared, and it is safe to handle; but there are chances of error, and unless these are first eliminated, the physician may be misled by this method of examination alone.

If a quantity of albuminous urine is placed in a test-tube, and a single drop of the solution allowed to fall upon it, a distinct coagulum will be formed; but when there is an excess of albumen, agitation of the mixture will cause it to be readily dissolved. If there are peptones in the urine, the addition of picric acid will be followed by a precipitate; and, contrary to the opinion of Dr. Tyson, Gerhardt has frequently observed peptones in urine free of albumen, either as a forerunner or consequence of ordinary albuminuria, while Senator states that peptones exist in every albuminous urine in slight quantities. Another source of error arises from the use of quinine, a substance excreted largely by the kidney, and it has already been stated that a weak solution of alkaloid, when brought in contact with picric acid, will show the characteristic reaction, but there are other alkaloids which will act in a similar manner, although I am not able at present to name them. The presence of urates will likewise throw down a coagulum with this solution, but not until after some minutes; but it should be stated that there is a material difference between this and the coagulum formed by albumen. In the case of urates it is crystalline, while that of albumen is granular.

We may conclude, therefore, that the picric acid test is an extremely delicate one, but that it is not decisive, and may be used with advantage only as a method of corroborating other tests, and then only after the chances of error have been eliminated.

It will not be out of place here to call attention to the

possibility of laying too much stress on the single fact that there is albumen in the urine, as it has been shown that it does exist in normal urine. The recent work of Dr. Millard, entitled "Bright's Disease," is authority for the statement that in a series of examinations, conducted by French surgeons, the urine of soldiers supposed to be in good health and free from hereditary taint, discovered the presence of albumen in no less than eighteen cases out of one hundred.

Dr. Leffmann: Undoubtedly, the more delicate a test is, the greater its scientific value. While it is true that undue fear may be excited by detecting very small amounts of albumen in urine, yet, on the one hand, if albumen is ever an ingredient in normal urine, it is only by these delicate tests that this fact can be established; and, on the other hand, if it is always pathological, the recognition of its earliest appearance will be of much clinical value. In my own experience I have found the glacial phosphoric acid the most delicate and easily applied tests.

Dr. Tyson: The questions which suggested themselves to Dr. Dulles, have, of course, suggested themselves to me. In speaking of picric acid, I took it simply as a type of a group, and I found that all the urines that gave the reaction with it were from cases showing symptoms of kidney or genito-urinary irritation, such as gravel, mild forms of cystitis and the like. I agree with Dr. Dulles as to the unnecessary public alarm in reference to Bright's disease, but I still think that in these delicate tests we have an important addition to our means of early diagnosis. I recall the case of a gentleman subject to gout who consulted me last spring, because a trace of albumen and a few casts had been found in his urine, which was also of low specific gravity, during an attack of gout. My examination was made after the attack had subsided, I found neither albumen nor casts. Six months later I re-examined the urine and found a trace of albumen by the ordinary heat and acid tests, and also a few hyaline casts. The patient was put upon litheated potash, and in two weeks I examined another specimen. This time I

found no albumen by the heat and acid test, but a distinct white line was revealed in overlaying the urine with a pure picric acid solution and underlaying it with the sodium tunstate. I think it may be fairly concluded from such results as these, that if the more delicate tests had been used in the first instance, I would then have detected the albumen. Again, I do not believe in the existence of a *normal* albuminuria. It is pretty certain that we often find small albuminurias which are of no significance. Such an albuminuria may be harmless and of no significance, but it is still not a normal albuminuria. I am aware that peptones occur in urine, and that these are precipitated by picric acid, and I referred to this fact in my note: but this fact need not necessarily interfere with the utility of these delicate tests after they have been thoroughly studied. The whole matter is now *sub judice*.

I have used Dr. Oliver's papers and find them delicate. I have myself never placed a very high estimate upon bedside testing, preferring to use the solutions at home. They certainly are a great improvement over all previous measures suggested for bedside testing.

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CLINICAL ASPECTS OF CEREBRAL SYPHILIS.

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In the present article I propose to say very little in regard to the lesions of cerebral syphilis, only making such allusions as are necessary to the clinical study. So much practical importance attaches to the etiological relations of the disorder that I shall discuss these at some length.

We do not know why syphilis attacks one portion of the brain rather than another in any individual case: indeed, very rarely can we give any sufficient explanation why the brain is affected at all.

It is naturally to be expected that any cause of ordinary brain inflammation would, when present in a syphilitic per-

son, tend to precipitate a specific cerebral disease. Thus, as thermic fever frequently provokes chronic meningitis, much plausibility attaches to the report of a case in the *Journ. de Med. et Chir. Prat.*, Paris, 1879, p. 291, where the cerebral syphilis is ascribed to a sunstroke. Blows and other traumatisms would, in a similar manner, be supposed to figure largely as exciting causes of brain syphilis; but I have never met with a case having such relations, and reports of them are rare in literature. The only records I have found are the cases reported by Dr. Broadbent, *London Lancet*, 1876, ii. p. 741, and a small collection in Huebner's article on Nervous Syphilis, in Ziemmsen's *Encyclopedia*, xii. 301. I have seen two cases of presumably traumatic spinal syphilis; one in which a poliomyelitis* followed a fall on the ice: and one in which, after a fall from a cart, and marked spinal concussion, a local myelitis developed. (*Univers. Hosp. Dispen. Service Book*, x. 1875, p, 58.)

Various authorities attach much influence to over-study and other forms of cerebral strain in exciting brain syphilis. Engelstedt is stated to have reported cases having such etiological relations, and Fournier (*La Syphilis du Cerveau*) affirms that he has especially seen the disease in professional men and other persons habitually exercising their brains to excess. Neither in private or public practice have I met with any instance where over-brain work could be considered a distinct etiological factor, whilst the wards of the Philadelphia Hospital and the roll of the University Dispensary are full of cases occurring in persons who use not at all the modicum of brains nature has endowed them with. So far as my observation goes, cases of brain syphilis in which any exciting cause can be found are very rare.

The inherited diathesis is less prone to manifest itself in the nervous system than in other portions of the body, but it certainly is capable of causing every type of nervous disease that follows infection from impure coition.

As early as 1779 Dr. Jos. Glenck (*Doctrina de Morbis Venereis*, Vienna) reported a case of a girl, six years old, cured by a mercurial course of epilepsy of three years' standing, and of other manifestations of hereditary syphi-

*In this case the man had symmetrical specific skin eruptions upon the arm and the symptoms were peculiarly symmetrical; great coldness of both forearms; excessive sweating of the palms; loss of power, so much more pronounced in the extensors than elsewhere that the patient had been treated for lead-poisoning and great wasting of the extensor muscles. Evidently a symmetrical syphilis chiefly confined to the anterior spinal cornua.

lis. Graefe found gummatous tumors in the cerebrum of a child nearly two years old. (*Arch f. Opthalm.*, Bd. i., erst. Abth.) Prof. O. Huebner (*Virchow's Archiv*, Bd. lxxxiv. 269) details the occurrence of pachymeningitis hemorrhagica in a syphilitic infant under a year old. Dr. Hans Chiari (*Wien. Med. Wochenschrift*, xxxi. 1881, 17) reports a case in which very pronounced syphilitic degeneration of the brain-vessels was found in a child fourteen months old. Both Dr. Barlow (*Lond. Patholog. Soc. Trans.*, 1877) and Dr. T. S. Dowse (*The Brain and its Diseases*, vol. i. p. 76) report cases of nerve syphilis in male infants of fifteen months.

It is a matter of great interest to know how late in life nervous diseases from inherited taint may develop. We have, as yet, little light upon the equally interesting and cognate problem as to how inherited syphilis may produce late in life nervous diseases whose type is not distinctly specific, but it is probable that even after puberty specific nervous affections may appear for the first time in the unfortunate offspring of syphilitic parents. Mr. Nettleship reports (*Trans. Lond. Path. Soc.*, xxxii. 13) the development of cerebral gumma in a girl of ten years, and Mr. J. A. Ormerod (*Ibid.*, p. 14) of a tumor of the median nerve (probably gummatous) in a woman twenty-three, both the subjects of inherited syphilis. Dr. Thos. S. Dowse (*loc. cit.*, p. 71) details a case of cerebral gumma at the age of ten years, and Dr. Saml. Wilks (*Lectures on Dis. of Nerv. Syst.*, Philad., 1878, p. 333) one of epilepsy from inherited taint in a boy of fourteen. Dr. I. Hughlings Jackson reports (*Journ. Ment. and Nerv. Diseases*, 1875, p. 516), paraplegia with epilepsy in a boy of eight, hemiplegia in a girl of eighteen, and in the *Brit. Med. Journal*, May 18, 1872, hemiplegia in a woman of twenty-two; the nervous affection in each case being associated with or dependent upon inherited syphilis. Dr. E. Mendel reports (*Archiv f. Psychiatrie*, Bd. i. 313) a case of a child who had inherited syphilis, and developed in her fifteenth year a maniacal attack with hallucinations.

Some time since, I saw, in an orphan of fourteen, a chronic basal meningitis, and, in the absence of any history, gave the fatal prognosis of tubercular disease, but to my astonishment, under the long-continued use of iodide of potassium, complete recovery occurred. No signs of inherited syphilis were perceptible, but the specific nature of the inflammation is, in view of the result, scarcely

doubtful; it is probable, that in some of the reported cases of alleged recovery from tubercular meningitis, the affection has really been syphilitic.

The relation of inherited syphilis to idiocy appears to be a close one. What role the diathesis has in the production of those cases which are dependent upon arrest of development we have no way at present of knowing, but that it very frequently causes chronic hydrocephalus seems to be well established. A number of cases have been reported: they have been collected by Dr. E. Mendel, *Archiv f. Psychiatrie*, Bd. i. 309. For a very important paper, see also, Virchow's *Archiv*, Bd. xxxviii. p. 129.

Nervous diseases following acquired syphilitic infection certainly belong to the advanced stages of the disorder. Huebner reports (Ziemmsen's *Encyclopedia*, xii. 298, New York edition) a case in which thirty years elapsed between the contraction of the chancre and the nervous explosion. I have seen a similar period of thirty years. Fournier reports intervals of twenty-five years, and thinks from the third to the tenth year is the period of maximum frequency of nerve accidents.

The fact that cerebral syphilis may occur many years after the cessation of all evidence of the diathesis is one of great practical importance, especially when taken in conjunction with the circumstances that the nervous system is more prone to be attacked when the secondaries have been very light than when the earlier manifestations have been severe. I have repeatedly seen nerve syphilis in persons whose secondaries have been so slight as to have been entirely overlooked or forgotten, and who honestly asserted that they never had syphilis, although they acknowledged to gonorrhœa or to repeated exposure, and confessed that their asserted exemption was due to good fortune rather than chastity.

To show that my experience is not peculiar, I may be allowed to make the following citations: Dr. Dowse (*The Brain and its Diseases*, London, 1879, vol. i. p. 7) says, "Often have I had patients totally ignorant of having at any time acquired or experienced the signs or symptom of syphilis in its primary or secondary stages, yet the sequelæ have been made manifest in many ways; particularly in many of the obscure diseases of the nervous system." Dr. Buzzard (*Syphilitic Nervous Affections*, London, 1874, p. 80) reports a case of nervous syphilis where the patient was unconscious of the previous existence of a chancre or

of any secondaries. Prof. Rinecker also calls attention (*Archiv f. Psychiatrie*, vii. p. 241) to the frequency of nervous syphilis in persons who afford no distinct history of secondary symptoms.

This frequent absence of history of specific infection is of great practical importance, and has led me to attach comparatively little weight to the statements of patients. In private practice I usually avoid asking questions which might bring up from the past unpleasant memories, and arrive at the diagnosis by studying the symptoms present. Although syphilis is most prone to attack the nervous system many years after infection, it would be a fatal mistake to suppose that brain disease may not rapidly follow the occurrence of a chancre. What is the minimum possible intermediate period we do not know, but it is certainly very brief, as is shown by the following cases of this so-called precocious cerebral syphilis. Dr. Alfrik Ljunggrén, of Stockholm, reports (*Archiv f. Dermatol. und Syphilis*, 1870, ii. p. 155) the case of H. R., who had a rapidly healed chancre in March, followed in May of the same year by a severe headache, mental confusion, and giddiness. Early in July H. R. had an epileptic attack, but he was finally cured by active anti-syphilitic treatment. Although the history is not explicit, the nervous sypmtoms appear to have preceded the development of distinct secondaries other than rheumatic pains.

Davaine is said (Buzzard, *Syphilitic Nervous Affections*, London, 1874) to have seen paralysis of the portio dura "a month after the first symptoms of constitutional syphilis." Dr. E. Leyden (*Zeitschrift f. Klin. Med.*, Bd. v, 165) found advanced specific degeneration of the cerebral arteries in a man who had contracted syphilis one year previously. Dr. R. W. Taylor details a case in which epilepsy occurred five months after the infection (*Journ. Nervous and Mental Dis.*, 1886, p. 38). In the case of M. X. reported by Dr. Ad. Schwarz (*De l'Hemiplegia Syphilitique Précoce*, Inaug. Diss., Paris, 1880), headache came on the fortieth day after the appearance of the primary sore, and a hemiplegia upon the forty-sixth day. S. L. (*Ibid*) had a paralytic stroke without prodromes, six months after the chancre. A. P. L. (*Ibid.*) had an apoplectic attack seven months after the chancre: A. S., one five months after her chancre. In a case which recently occurred in the practice of Dr. A. Sydney Roberts, of this city, the chancre appeared after a period of incubation of

twenty-six days, and two months and eight days subsequent to this came the first fit; eight days after the first the second convulsion occurred, with a distinct aura, which preceded by some minutes the unconsciousness. The further details of this case are not germane to the present discussion, which only requires the additional statement that the attack developed into an unmistakable cerebral syphilis with temporary aphasia, and that convalescence was finally secured by active anti-syphilitic treatment. As the first paroxysms came on without warning, whilst the man was fishing in the sun, it is not unwarrantable to suppose that a precocious cerebral syphilis was in this case precipitated by exposure to the ordinary causes of sunstroke. This list of cases might be much extended, but it certainly is sufficient to show that cerebral syphilis occurs not very rarely within six months after infection, and may be present in two months.

An interesting observation in this connection is that of Dr. Ern. Gaucher (*Revue de Méd.*, 1882, ii. 678) of a spinal syphilis occurring six months after the appearance of a chancre.

Syphilographers are in accord in regard to the existence of two pathological varieties of brain syphilis, whilst some authorities believe in a third form. The most common seat of attack is the membranes; next to these are the brain-vessels; whilst, as already intimated, there is difference of opinion as to whether the disease ever directly affects the brain-tissue. Reasons will be given later on for believing that the brain-substance may suffer violence from syphilis, but I shall first discuss the clinical aspects of specific disease of the membranes.

Disease of Brain Membranes.—Specific affections of the brain membranes very often declare themselves with great suddenness. The records of the disease present case after case in which an apoplectic attack, a convulsive paroxysm, a violent mania, or a paralytic stroke, has been the first detected evidence of syphilitic cerebral disease. On the other hand, in many instances the symptoms come on slowly and successively. Proper treatment, instituted at an early stage, is usually successful, so that a careful study of these prodromes is most important. They are generally such as denote cerebral disturbance; and, although they should excite suspicion, are not diagnostic, except as occurring in connection with a specific history, or under suspicious circumstances.

Headache, slight failure of memory, unwonted slowness of speech, general lassitude, and especially lack of willingness to mental exertion, sleeplessness or excessive somnolence, attacks of momentary giddiness, vertiginous feelings when straining at stool, yelling, or in any way disturbing the cerebral circulation, alteration of disposition—any of these, and *à fortiori*, several of them, occurring in a syphilitic subject, should be the immediate signal of alarm, and lead to the examination of the optic disks, for in some cases the eye-ground will be found altered even during the prodromic stage. Of course, if choked disk be found, the diagnosis becomes practically fixed, but the absence of choked disk is no proof that the patient is not suffering from cerebral syphilis. In regard to the individual prodromic symptoms, my own experience does not lend especial importance to any one of them; although, perhaps, headache is most common. There is one symptom which may occur during the prodromic stage of cerebral syphilis, but is more frequent at a later stage; a symptom which is not absolutely characteristic of the disease, but which, when it occurs in a person who is not hysterical, should give rise to the strongest suspicion. I refer to the occurrence of repeated, partial, passing palsies. A momentary weakness of one arm, a slight drawing of the face disappearing in a few hours, a temporary dragging of the toe, a partial aphasia which appears and disappears, a squint which to-morrow leaves no trace, may be due to a non-specific brain tumor, to miliary cerebral aneurisms, or to some other non-specific affection: but in the great majarity of cases where such phenomena occurs repeatedly, the patient is suffering from syphilis or hysteria.

The first type or variety of the fully-formed syphilitic meningeal disease to which attention is here directed, is that of an *acute meningitis*. I am much inclined to doubt whether an acute syphilitic meningitis can ever develop as a primary lesion: whether it must not always be preceded by a chronic meningitis or by the formation of a gummatous tumor: but it is very certain that acute meningitis may develop, when there have been no apparent symptoms, and may, therefore, seem to be abrupt in its onset. Some years ago I saw, in consultation, a man who, in the midst of apparent health, was attacked by violent meningeal convulsions, with distinct evidences of acute meningitis. He was apparently saved from death by very heroic venesection, but after his return to consciousness developed

very rapidly a partial hemiplegia, showing that a latent gumma had probably preceded the acute attack. On the other hand, an acute attack is liable at any time to supervene upon a chronic syphilitic meningitis. At the University Hospital Dispensary I once diagnosed chronic cerebral syphilis in a patient who the next day was seized with violent delirium, with convulsions and typical evidences of acute meningitis, and died four or five days afterwards. At the autopsy an acute meningitis was found to have been engrafted on a chronic specific lesion of a similar character. In the case reported by Dr. Gamel (*Tumeurs Gommeuses du Cerveau*, Inaug. Diss., Montpellier, 1875), in which intense headache, fever, and delirium, came on abruptly in an old syphilitic subject and ended in general palsy and death, the symptoms were found to depend upon an acute meningitis, secondary to a large gumma.

In this connection may well be cited the observation of Dr. Molinier (*Revue Med. de Toulouse*, xiv., 1880, 341), in which violent delirium, convulsions, and coma occurred suddenly. A very curious case is reported by Dr. D. A. Zambaco (*Des Affections Nerveuses Syphilitiques*, Paris, 1862, p 485), in which attacks simulating those of acute meningitis appear to have been produced in a man with a cerebral gummatous tumor by a malarial complication. In such a case the diagnosis of a malarial paroxysm could only be made by the presence of the cold stage, the transient nature of the attack, its going off with a sweat, its periodical recurrence, and the therapeutic effect on it of quinine.

In the cases of *chronic meningeal syphilis* which have come under my observation, most usually after a greater or less continuance of prodromes, such as have been mentioned, epileptic attacks have occurred with a hemiplegia, or a monoplegia, which is almost invariably incomplete and usually progressive: very frequently diplopia is manifested before the epilepsy, and on careful examination is found to be due to weakness of some of the ocular muscles. Not rarely oculo-motor palsy is an early and pronounced symptom, and a marked paralytic squint is very common. Along with the development of these symptoms there is always distinct failure of the general health, and progressive intellectual deterioration, as shown by loss of memory, failure of the power to fix the attention, mental bewilderment, and, perhaps, aphasia. If the case convalesce under treatment, the amelioration is gradual, the

patient traveling slowly up the road he has come down. If the case end fatally, it is usually by a gradual sinking into complete nerve-paralysis, or the patient is carried off by an acute inflammatory exacerbation, or, as I saw in one case, amelioration may be rapidly occurring, and a very violent epileptic fit produce a sudden asphyxia. In this form of cerebral syphilis, death from brain-softening around the tumor is not infrequent; but a fatal apoplectic hemorrhage is rare.

The clinical varieties of cerebral meningeal syphilis are so polymorphic and kaleidoscopic that it is almost impossible to reduce them to order for descriptive purposes. Prof. Fournier separates them into the cephalic, congestive, epileptic, aphasic, mental, and paralytic, but scarcely facilitates description by so doing. Heubner makes the following types:

"1. Psychical disturbances, with epilepsy, incomplete paralysis (seldom of the cranial nerves), and a final comatose condition usually of short duration.

"2. Genuine apoplectic attacks with succeeding hemiplegia, in connection with peculiar somnolent conditions, occurring in often-repeated episodes: frequently phenomena of unilateral irritation, and generally at the same time paralysis of the cerebral nerves.

"3. Course of the cerebral disease similar to paralytic dementia."

In regard to these types, the latter seems to me clear and well defined, but contains those cases which I shall discuss under the head of cortical disease.

Meningeal syphilis as seen in this country does not conform rigidly with the other asserted types, although there is this much of agreement, that when the epilepsy is pronounced, the basal cranial nerves are not usually paralyzed, the reason of this being that epilepsy is especially produced when the gummatous change is in the ventricles or on the upper cortex. In basal affections, the epileptoid spells, if they occur at all, are usually of the form of petit mal; but this rule is general, not absolute. The apoplectic somnolent form of cerebral syphilis, for some reason, is rare in this city; and it seems necessary to add to those of Prof. Heubner's, a fourth type, to which a large proportion of our cases conform. This type I would characterize as follows:

4. Psychical disturbance without complete epileptic convulsions, associated with palsy of the basal nerves and often wtth partial hemiplegia.

The most satisfactory way of approaching this subject is, however, to study the important symptoms in severalty, rather than attempt to group them so as to make typical, recognizable varieties of the disease, and this method I shall here adopt.

Headache is the most constant and usually the earliest symptom of meningeal syphilis; but it may be absent, especially when the lesion is located in the reflexions of the meninges, which dip into the ventricles, or, when the basal gumma is small and not surrounded with much inflammation. The length of time it may continue without the development of other distinct symptoms is remarkable. In one case (Book Y, p. 88, 1879), at the University Dispensary, the patient affirmed that he had had it for four years before other causes of complaint appeared. It sometimes disappears when other manifestations develop. It varies almost indefinitely in its type, but is, except in very rare cases, at least so far paroxysmal as to be subject to pronounced exacerbations. In most instances it is entirely paroxysmal: and a curious circumstance is, that very often these paroxysms may occur only at long intervals; such distant paroxysms are usually very severe, and are often accompanied by dizziness, sick stomach, partial unconsciousness, or even by more marked congestive symptoms. The pain may seem to fill the whole cranium, may be located in a more cerebral region, or fixed in a very limited spot. Huebner says that when this headache can be localized, it is generally made distinctly worse by pressure at certain points, but my own experience is hardly in accord with this. Any such soreness plainly cannot directly depend upon the cerebral lesion, but must be a reflex phenomenon, or due to a neuritis. According to my own experience, localized soreness indicates an affection of the bone or of its periosteum. In many cases, especially when the headache is persistent, there are distinct nocturnal exacerbations.

It will be seen that there is nothing absolutely characteristic in the headache of cerebral syphilis; but excessive persistency, apparent causelessness, and a tendency to nocturnal exacerbation, should in any cephalalgia excite suspicion of a specific origin; a suspicion which is always to be increased by the occurrence of slight spells of giddi-

ness, or by delirious mental wandering accompanying the paroxysms of pain. When an acute inflammatory attack supervenes upon a specific meningeal disease, it is usually ushered in by a headache of intolerable severity.

When the headache in any case is habitually very constant and severe, the disease is probably in the dura mater or periosteum, and this probability is much increased if the pain be local and augmented by firm, hard pressure upon the skull over the seat of pain.

Disorders of Sleep.—There are two antagonistic disorders of sleep, either of which may occur in cerebral syphilis, but which have only been present in a small proportion of the cases that I have seen. Insomnia is more apt to be troublesome in the prodromic than in the later stages, and is only of significance when combined with other more characteristic symptoms. A peculiar somnolence is of much more determinate import. This may occur in non-specific lepto-meningitis, and in states of altered brain nutrition from senile or other degenerations of the walls of the cerebral vessels, and is therefore not pathognomonic of cerebral syphilis, yet of all the single phenomena of the latter disease it is the most characteristic. Its absence is of no import in the theory of an individual case.

As I have seen it, it occurs in two forms: In the one variety the patient sits all day long or lies in bed in a state of semi-stupor, indifferent to everything, but capable of being aroused, answering questions slowly, imperfectly, and without complaint, but in an instant dropping off again into his quietude. In the other variety the sufferer may still be able to work, but often falls asleep while at his tasks, and especially towards evening has an irresistible desire to slumber, which leads him to pass, it may be, half of his time in sleep. This state of partial sleep may precede that of the most continuous stupor, or may pass off when an attack of hemiplegia seems to divert the symptoms. The mental phenomena in the more severe cases of somnolency are peculiar. The patient can be aroused, indeed in many instances he exists in a state of torpor rather than of sleep; when stirred up he thinks with extreme slowness, and may appear to have a form of aphasia; yet, at intervals he may be endowed with a peculiar automatic activity, especially at night. Getting out of bed; wandering aimlessly and seemingly without knowledge of where he is, and unable to find his own bed; passing his excretions in a corner of the room, or other similar place, not because he is unable to

control his bladder and bowels, but because he believes that he is in a proper place for such act—he seems a restless automaton rather than a man.

Apathy and indifference are the characteristics of this state, and yet the patient will sometimes show excessive irritability when aroused, and will at other periods complain bitterly of pain in his head, or will groan as though suffering severely in the midst of his stupor, at a time too when he is not able to recognize the seat of the pain. I have seen a man with a vacant apathetic face, almost complete aphasia, persistent heaviness and stupor, arouse himself when the stir in the ward told him that the attending physician was present, and come forward in a dazed, highly pathetic manner, by signs and broken utterance begging for something to relieve his head. Heubner speaks of cases in which the irritability was such that the patient fought vigorously when aroused; this I have not seen.

This somnolent condition may last many weeks. Dr. T. Buzzard (*Clinical Lectures on Dis. Nerv. Syst.*, London, 1882) details the case of a man who, after a specific hemiplegia, lay silent and somnolent for a month, and yet finally recovered so completely as to win a rowing match on the Thames.

In its excessive development, syphilitic stupor puts on the symptoms of advanced brain softening, to which it is indeed often due. Of the two cases with fatal result of which I have notes, one at the autopsy was found to have symmetrical purulent breaking down of the anterior cerebral lobes; the other, softening of the right frontal and temporal lobes, due to the pressure of a gummatous tumor, and ending in a fatal apoplexy.

This close connection with cerebral softening explains the clinical fact that apoplectic hemorrhage is very apt to end the life in these cases of somnolent syphilis. Dr. Buzzard's case given above, and others which might be cited, prove, however, that a prolonged deep stupor in persons suffering from cerebral syphilis does not prove the existence of extensive brain softening, and is not incompatible with subsequent complete recovery. As an element of prognosis, it is of serious but not of fatal import.

Paralysis.—When it is remembered that a syphilitic exudation may appear at almost any position in the brain, that spots of encephalic softening are a not rare result of the infection, that syphilitic disease is a common cause of cerebral hemorrhage—it is plain that a specific palsy may be

of any conceivable variety, and affect, either the sensory, motor, or intellectual sphere. The mode of onset is as various as the character of the palsy. The attack may be instantaneous, sudden, or gradual. The gradual development of the syphilitic gumma would lead us, *a priori*, to expect an equally gradual development of the palsy; but experience shows that in a large proportion of the cases the palsy develops suddenly, with or without the occurrence of an apoplectic or epileptic fit. Under these circumstances it will be usually noted that the resulting palsy is incomplete: in rare instances it may be at its worst when the patient awakes from the apoplectic seizure, but mostly it progressively increases for a few hours, and then becomes stationary. These sudden partial palsies probably result from an intense congestion around the seat of disease, or from stoppage of the circulation in the same locality; but whatever their mechanism may be, it is important to distinguish them from palsies which are due to hemorrhage. I believe this can usually be done by noting the degree of paralysis.

A suddenly developed, *complete* hemiplegia, or other paralysis, may be considered as in all probability either hemorrhagic or produced by a thrombus so large that the results will be disorganization of the brain substance, and a future no more hopeful than that of a clot. On the other hand, an *incomplete* palsy may be rationally believed to be due to pressure or other removable cause, and this belief is much strengthened by a gradual development. The bearing of these facts upon prognosis it is scarcely necessary to point out.

Although the gummæ may develop at almost any point, they especially affect the base of the brain, and are prone to involve the nerves which issue from it. Morbid exudations, not tubercular nor syphilitic, are very rare in this region. Hence a rapidly but not abruptly appearing strabismus, ptosis, dilated pupil, or any paralytic eye symptom in the adult, is usually of syphilitic nature. Syphilitic facial palsy is not so frequent, whilst paralysis of the nerve from rheumatic and other inflammation within its bony canal are very common. Paralysis of the facial may therefore be specific, but it is of no diagnostic value. Since syphilitic palsies about the head are in most instances, due to pressure upon the nerve trunks, the electrical reactions of degeneration are present in the affected muscles.

There is one peculiarity about specific palsies which has

already been alluded to as frequently present, namely, a temporary, transient, fugitive, varying character and seat. Thus an arm may be weak to-day, strong to-morrow, and the next day feeble again, or the recovered arm may retain its power, and a leg fail in its stead. These transient palsies are much more apt to involve large than small brain territories. The explanation of their largeness, fugitiveness, and incompleteness is that they are not directly due to clots or other structural changes, but to congestions of the brain tissues in the neighborhood of gummatous exudations. It is easily seen why a squint will remain when the accompanying monoplegia disappears.

Motor palsies are more frequent than sensory affections in syphilis, but hemianæsthesia, localized anæsthetic tracts, indeed any form of sensory paralysis may occur. Numbness, formications, all varieties of parasthesia are frequently felt in the face, body, or extremities. Violent peripheral neuralgic pains are rare, and generally when present denote neuritis. Prof. Huguenin, however, reports (*Schwiez. Corr. Blat.*, 1875) a case in which a severe trigeminal anæsthesia dolorosa had existed during life, as the only cerebral symptom, and death occurring from lung disease, a small gumma was found on the sella turcica pressing upon the Gasserian ganglion.

The special senses are liable to suffer from the invasion of their territories by cerebral syphilis, and the resulting palsies follow courses and have clinical histories parallel to those of the motor sphere. The onset may be sudden, or gradual, the result temporary or permanent. Dr. Chas. Mauriac (*loc. cit.*, p. 31) reports a case in which the patient was frequently seized with sudden attacks of severe frontal pain and complete blindness, lasting from a quarter to half an hour; at other times the same patient had spells of aphasia lasting only for one or two minutes. In a case still under my care with unmistakable signs of cerebral syphilis, the man was suddenly and unaccountably seized with complete deafness, which after some days disappeared in the course of a few hours. Like other syphilitic palsies, therefore, paralyses of special senses may come on suddenly or gradually, and may occur paroxysmally.

Among the palsies of cerebral syphilis must be ranked aphasia. An examination of recorded cases shows that it is subject to vagaries and laws similar to those connected with other specific cerebral palsies. It is usually a symp-

tom of advanced disease, but may certainly develop as one of the first evidences of cerebral syphilis.

Coming on after an apoplectic or epileptic fit, it may be complete or incomplete: owing to the smallness of the centre involved and the ease with which its function is held in abeyance, a total loss of word thought is not so decisive as to the existence of cerebral hemorrhage as is a total motor palsy. Like hemiplegia or monoplegia, specific aphasia is sometimes transitory and paroxysmal. Dr. Buzzard (*loc. cit.*, p. 81) records several such cases. Dr. Chas. Mauriac (*Aphasie et Hemiplégie droite Syphilit.*, Paris, 1877) details a very curious case in which a patient after long suffering from headache was seized by sudden loss of power in the right hand and fingers lasting about ten minutes only, but recurring many times a day. After this had continued some time the paroxysms became more completely paralytic and were accompanied by loss of power of finding words, the height of the crises in the palsy and aphaisa being simultaneously reached. For a whole month these attacks occurred five or six times a day, without other symptoms except headache, and then the patient became persistently paralytic and aphasic, but finally recovered.

To describe the different forms of specific aphasia and their mechanism of production would be to enter upon a discussion of aphasia iiself, a discussion out of place here. Suffice to say that every conceivable form of the disorder may be induced by syphilis.

Owing to the centres of speech being situated in the cortical portion of the brain, aphasia in cerebral syphilis is very frequently associated with epilepsy. Of course right-sided palsy and aphasia are united in syphilitic as in other disorders. If, however, the statistics given by M. Tanowsky (*L'Aphasie Syphilitique*) be reliable, syphilitic aphasia is associated with left-sided hemiplegia in a most extraordinarily large proportion. Thus in 53 cases collected by Mr. Tanowsky, 18 times was there right-sided hemiplegia, and 14 times left-sided hemiplegia, the other cases being not at all hemiplegia. Judging from the autopsy on a case reported in Mauriac's brochure this concurrence of left-sided paralysis and aphasia, depends partly upon the great frequency of multiple brain lesions in syphilis, and partly upon the habitual involvement of large territories of the gray matter secondarily to diseased membrane. An important practical deduction is that the conjoint existence

of left hemiplegia, and aphasia is almost diagnostic of cerebral syphilis.

Probably amongst the palsies may be considered the disturbances of the renal functions, which are rarely met with in cerebral syphilis, and which are probably usually dependent upon the specific exudation pressing upon the vaso-motor centres in the medulla. Fournier speaks of having notes of six cases in which polyuria with its accompanient, polydipsia, was present, and details a case in which the specific growth was found in the floor of the fourth ventricle. Cases have been reported in which true saccharine diabetes has been present (Consult. Servantié, *Des rapports du Diabète et de la Syphilis*. Paris Thèse, 1876), and I can add to these an observation of my own. The symptoms, which occurred in a man of middle age with a distinct specific history, were headache, nearly complete hemiplegia, and mental failure, associated with the passage of comparatively small quantities of a urine so highly saccharine as to be really a syrup. Under the influence of the iodide of potassium the sugar in a few weeks disappeared from the urine.

Epilepsy.—Epileptic attacks are a very common symptom of meningeal syphilis, and are of great diagnostic value. The occurrence in an adult of an epileptic attack, or of an apoplectic fit, or of a hemiplegia after a history of intense and protracted headache, should always excite grave suspicion.

Before I read Prof. Fournier's work on Nervous Syphilis, I taught that an epilepsy appearing after thirty years of age was very rarely, if ever, essential epilepsy, and unless alcoholism, uræmic poison, or other adequate cause could be found was in nine cases out of ten specific; and I therefore quote with satisfaction Prof. Fournier's words: L'épilepsie vraie, ne fait jamais son premier début à l'âge adulte, à l'âge mûr. Si un homme adulte, au dessus de 30, 35 à 40 ans, vient à être pris pour la premiére fois d'une bonne santé apparente, il y a, je vous le répète, huit ou neuf chances sur dix pour que cette épilepsie soit d'origine syphilitique.

Syphilitic epilepsy may occur either in the form of petit mal or of the haut mal, and in either case may take on the exact characters and sequence of phenomena which belong to the so-called idiopathic or essential epilepsy. The momentary loss of consciousness of petit mal will usually, however, be found to be associated with attacks in which,

although voluntary power is suspended, memory recalls what has happened during the paroxysm; attacks, therefore, which simulate those of hysteria, and may lead to an error of diagnosis.

Even in the fully developed type of the convulsions the aura is only rarely present. Its absence is not, however, of diagnostic value, because it is frequently not present in true essential epilepsy, and it may be pronounced in specific disease. It is said, that when in an individual case the aura has once appeared, the same type or form of approach of the convulsion is thereafter rigidly adhered to. The aura is sometimes bizarre: a severe pain in the foot, a localized cramp, a peculiar sensation, indescribable and unreal in its feeling, may be the first warning of the attack.

In many, perhaps most cases of specific convulsions, instead of a paroxysm of essential epilepsy being closely simulated, the movements are in the onset, or, more rarely, throughout the paroxysm, unilateral: indeed, they may be confined to one extremity. This restriction of movement has been held to be almost characteristic of syphilitic epilepsy, but it is not so. Whatever diagnostic significance such restriction of the convulsion has, is simply to indicate that the fit is due to a cortical organic lesion of some kind. Tumors, scleroses, and other organic lesions of the brain cortex are as prone to cause unilateral or monoplegic epilepsy when they are not specific as when they are due to syphilis.

Sometimes an epilepsy, dependent upon a specific lesion implicating the brain cortex, may be replaced by a spasm which is more or less local and is not attended with any loss of consciousness. Thus, in a case now convalescent in the University Hospital, a man, aged about thirty-five, offered a history of repeated epileptic convulsions, but at the time of his entrance into the hospital, instead of epileptic attacks there was a painless tic. The spasms which were clonic, and occurred very many times a day—sometimes every five minutes—were very violent and mostly confined to the left facial nerve distribution. The trigeminus was never affected, but in the severer paroxysms the left hypoglossal and spinal accessory nerves were profoundly implicated in all of their branches. Once, fatal asphyxia from recurrent laryngeal spasm of the glottis was apparently averted only by the free inhalation of the nitrite of amyl. The sole other symptom was headache, but the

specific history was clear, and the effect of anti-syphilitic remedies rapid and pronounced.

Psychical Symptoms.—As already stated, apathy, somnolence, loss of memory, and general mental failure are the most frequent and characteristic mental symptoms of meningeal syphilis, but, as will be shown in the next chapter, syphilis is able to produce almost any form of insanity, and therefore mania, melancholia, erotic mania, delirium of grandeur, etc., etc., may develop along with the ordinary manifestation of cerebral syphilis, or may come on during an attack which has hitherto produced only the usual symptoms. Without attempting any exhaustive citation of cases, the following may be alluded to:

Dr. A. Erlenmeyer reports (*Die leutischen Psychosen*) a case in which an attack of violent headache and vomiting was followed by paralysis of the right arm and paresis of the left leg, with some mental depression: a little later the patient suddenly became very cheerful, and shortly afterwards manifested very distinctly delirium of grandeur with failure of memory. Dr. Batty Luke reports (*Jour. Ment. Sci.*, Jan. 1874, p. 560) a case in which aphasia, muscular wasting, strabismus, and various palsies, there were delusions and halucinations.

In the same journal, April, 1869, Dr. S. D. Williams reports a case in which there were paroxysmal violent attacks of frontal headache. The woman was very dirty in her habits, only ate when fed, and existed in a state of hypochondriacal melancholy.

M. Leiderdorf details a case with headache, partial hemiplegia, great psychical disturbance, irritability, change of character, marked delirium of grandeur, epileptic attacks, and finally dementia, eventually cured with iodide of potassium. (*Medizen. Jahrbücher*, xx. 1864, p. 114.) Several cases illustrating different forms of insanity are reported by Dr. N. Manssurow. (*Die Tertiäre Syphilis*, Wein., 1877.)

That the attacks of syphilitic insanity, like the palsies of syphilis, may at times be temporary and fugitive, is shown by a curious case reparted by Dr. H. Hayes Newington (*Jour. Ment. Sci. London*, xix. 555), in which along with headache, failure of memory, and ptosis in a syphilitic person there was a brief paroxysm of noisy insanity.

Diseases of Brain Substance.—The psychical symptoms which are produced by syphilis are often very pro-

nounced in cases in which the paralysis, headache, epilepsy, and other palpable manifestations show the presence of gross brain lesions. In the study of syphilitic disease of the brain membranes, sufficient has been said in regard to these psychical disturbances, but the problem which now offers itself for solution is as to the existence or non-existence of syphilitic insanity, *i. e.*, of an insanity produced by specific contagion without the obvious presence of gummatous disease of the brain membranes. Very few alienists recognize the existence of a distant affection entitled to be called syphilitic insanity, and there are some who deny that insanity is ever directly caused by syphilis. It is certain that insanity often occurs in the syphilitic, but syphilis is abundantly joined with alcoholism, poverty, mental distress, physical ruin and various depressing emotions and conditions which are well known to be active exciting causes of mental disorder. It may well be that syphilis is in such way an indirect cause of an insanity, which under the circumstances could not be properly styled syphilitic.

If there be disease of the brain cortex produced directly by syphilis, of course such disease must give rise to mental disorders, and if the lesion be situated in such a way as to effect the psychic and avoid the motor regions of the brain, it will produce mental disorder without paralysis, *i. e.*, a true insanity: again, if such brain disease be wide spread, involving the whole cortex, it will cause a progressive mental disorder, accompanied by gradual loss of power in all parts of the body and ending in dementia with general paralysis; or, in other words, it will produce an affection more or less closely resembling the so-called General Paralysis of the Insane, or Dementia Paralytica.

As a man having syphilis may have a disease which is not directly due to the syphilis, when a syphilitic person has any disorder, there is only one positive way of determining how far said disorder is specific, namely, by studying its amenability to anti-syphilitic treatment. In approaching the question whether a lesion found after death is specific or not, of course such a therapeutic test as that just given is inapplicable. We can only study as to the coexistence of the lesion in consideration with other lesions known to be specific. Such coexistence of course does not absolutely prove the specific nature of a nutritive change, but renders such nature exceedingly probable.

What has just been said foreshadows the method in

which the subject in hand is to be here examined, and the present chapter naturally divides itself into two sections: the first considering the coexistence of anatomical alterations occurring in the cerebral substance with syphilitic affections of the brain membranes or bloodvessels, the second being a clinical study of syphilitic insanity.

In looking over literature I have found the following cases in which a cerebral sclerotic affection coincided with a gummatous disease of the membrane. Gross and Lancereaux (*Affect. Nerv. Syphilis*, 1861, p. 245) report a case having a clear syphilitic history, in which the dura mater was adherent to the skull. The pia mater was not adherent. Beneath, upon the vault of the brain, was a gelatinous exudation. The upper cerebral substance was indurated, and pronounced by M. Robin after microscopic examination to be sclerosed. At the base of the brain were very atheromatous arteries and spots of marked softening.

Dr. Jos. J. Brown (*Journ. Med. Sci.*, July, 1875, p. 271) reports a case in which the symptoms were melancholia, excessive irritability, violent outbursts of temper, very positive delusions, disordered gait ending in dementia. At the autopsy, which was very exhaustive, extensive syphilitic disease of the vessels of the brain and spinal cord was found. The pia mater was not adherent to the brain. The convolutions, particularly of the frontal and parietal lobes, were atrophied with very wide sulci, filled with bloody serum. The neuroglia of these convolutions was much increased and "appeared to be more molecular than normal, the cells had degenerated and in many places had disappeared, their places being only occupied by some granules." These changes were most marked in the frontal convolutions.

H. Schule reports (*Allgem. Zeitschrift f. Psychiatrie* xxviii., 1871–2) a very carefully and meritoriously studied case. The symptoms during life exactly simulated those of dementia paralytica. The affection commenced with an entire change in the disposition of the patient: from being taciturn, quiet, and very parsimonious, he became very excited, restless, and desiring continually to buy in the shops. Then failure of memory, marked sense of well-being, carelessness and indifference for the future, developed consentaneously with failure of the power of walking, trembling of the hands, inequality of the pupils, and hesitating speech. There was next a period of melan-

choly, which was in time followed by continuous failure of mental and motor powers, and very pronounced delirium of grandeur, ending in complete dementia. Death finally occurred from universal palsy, with progressive increase of the motor symptoms. At the autopsy, characteristic syphilitic lesions were found in the skull, dura mater, larynx, liver, intestines, and testicles. The brain presented the macroscopic and microscopic characters of sclerosis and atrophy: the neuroglia was much increased, full of numerous nuclei, the ganglion cells destroyed. The vessels were very much diseased, some reduced to cords: their walls were greatly thickened, and full of long spindle-shaped cells, sometimes also containing fatty granules.

Dr. C. E. Stedman and Robt. T. Edes report (*Amer. Journ. Med. Sci.*, lxix., 433) a case in which the symptoms were failure of health, ptosis, trigeminal palsy with pain (anæsthesia dolorosa), finally mental failure with gradual loss of power of motion and sensation. At the autopsy the following conditions were noted: apex of the temporal lobe adherent to dura mater and softened; exuded lymph in neighborhood of optic chiasm; sclerosis of right Gasserian ganglion, as shown in a marked increase of the neuroglia: degeneration of the basal arteries of the brain.

These cases are sufficient to demonstrate that sclerosis of the brain substance may not only coexist with a brain lesion, which is certainly specific in its character, but may also present the appearance of having developed *pari passu* with that lesion, and from the same cause.

It has already been stated in this memoir that cerebral meningeal syphilis may coexist with various forms of insanity, and cases have been cited in proof thereof. It is of course very probable that in some of such cases there has been that double lesion of membrane and gray brain matter which has just been demonstrated by report of autopsies; further, if we find that there is a syphilitic insanity, which exists without evidences of meningeal syphilis, and is capable of being cured by anti-specific treatment, such insanity must be considered as representing the disease of the gray matter of the brain. Medical literature is so gigantic that it is impossible to exhaust it, but the following list of cases is amply sufficient to prove the point at issue, namely, that there is a syphilitic insanity, which exists without obvious meningeal disease and is capable of being cured by anti-syphilitic treatment.

No.	Reporter and Journal.	Symptoms.	Results. Remarks.
1	Louis Streisand..... Dieu Lues als Ursache der Dementia. Inaug Diss. Berlin, 1878.	Epilepsy, delirium of exaltation, alteration of speech, headache, failure of memory.	Rapid cure with Mercury.
2	Ibid.....	Delusions, delirium, general mania, great muscular weakness.	Cure with mercury.
3	Dr. Muller of Leutkirch..... Journ. of Mental Dis., 1873-4, 561.	Symptoms resembling general paralysis, and diagnosis of such made until a sternal node was discovered.	Cure by Iodide of potassium.
4	Fr. Esmarch and W. Jersen..... Allgem. Zeitschrift f. Psychiatrie.	Sleeplessness, great excitement, restlessness, great activity, incoherence and violence.	Cure by mercury.
5	M. Leidesdorf..... Medizin. Jahrbucher, xx., 1864, 1.	Complete mania, played with his excrement, and entirely irrational.	Complete cure by iodide of potassium.
6	Dr. Beauregard..... Gaz. Hebdom. de Sci. Med. de Bordeaux, 1880, p. 64.	Symptoms resembling those of general paralysis	Cure by iodida of potassium.
7	M. Rendu..... Ibid.....	Loss of memory, headache, irregularity of pupils, ambitious delirium, periods of excitement, others of depression, embarrassment of speech, access of furious delirium ending in stupor.	Mercurial treatment, cure.
8	Ibid.....	Hypochondria, irregularity of pupils, headache, failure of memory, melancholy, stupor.	Mercurial treatment, cure.
9	Dr. Albrecht Erlinmeyer..... Die lueteschen Psychosen, Neuwied, 1877.	Melancholia with hypochondriasis, sleeplessness, fear of men, and belief they were all leagued against him.	Iodide of potassium, cure.
10	Ibid.....	Religious melancholia, with two attempts at suicide, ending in mania.	Iodide of potassium, cure.
11	Ibid.....	At times very violent, yelling, shrieking, destroying everything she could get hands on, at times erotomania; no distinct history of infection, but her habits known to be bad, and had bone ozæna and other physical syphiltic signs.	Iodide of potassium, cure.
12	Ibid.....	Epileptic attack followed by a long soporose condition, ending in mental confusion, he not knowing his nearest friends, etc., almost dementia.	Cure by mercurial inunction.
13	Ibib.....	Great fear of gend'armes, etc., mania, with hallucinations, loud crying, yelling, etc., then convulsions, followed by great difficulfy of speech.	Cured by mercurial inunctions wifh iodide internally; subsequently return of convulsions, followed by hemiplegia and death.

No.	Reporter and Journal.	Symptoms.	Results. Remarks.
14	Ibid	Great unnatural vivacity and loquacity, wanted to buy everything, bragged of enormous gains at play, etc.; some trouble of speech.	Iodide of potassium cure. Attended to business a'd seems as well as before. Relapsed. (See Symptoms.)
	Ibid ..... Relapse of case 14.	Fifteen months after discharge from asylum relapse; symptoms developing very rapidly, delirium of grandeur of the most aggravated type with marked progressive dementia, failure of power of speech, and finally of locomotion.	Failure of various antispecific treatment.
15	Dr. A. Erlenmeyer... Die luetischen, etc.	Failure of mental powers, inequality of pupils, trembling of lip when speaking, uncertainty of gait, almost entire loss of memory, once temporary ptosis and strabismus.	Iodide of potassium in ascending doses failed. Recovery under mercurial inunctions.
16	Ibid	Failure of mental powers, pronounced delirium of grandeur, hallucinations of hearing, failure of memory, strabismus and ptosis coming on late.	Iodide of potassium, corrosive sublimate injections. Cure.
17	Ibid	Failure of memory and mental powers, slight ideas of grandeur, disturbance of sensibility and motility, aphasia coming on late.	Cure with use of iodide and mercurial inunctions.
18	Ibid	Melancholly, great excitability, ideas of grandeur, after a long time sudden ptosis and strabismus.	Iodide of potassium failed; mercurial course improved; joint use cured patient.
19	Ibid	Various cerebral nerve palsies, great relief by use of mercurial inunctions, then development of great excitement, delirium of grandeur, failure of memory and mental powers, and finally death from apoplexy; no autopsy.	
20	Dr. J. B. Chapin..... Amer. Journ. Insanity, vol. xv. p.249.	Melancholia with attempted suicide, epilepsy, headache, somnolent spells.	Iodide of potassium, cure.
21	Ibid	Acute mania, noisy, very destructive; syphilitic disease of tibia.	Iodide of potassium, cure.
22	Dr. Snell.....	Maniacal excitement.	Cured by specific treatment.
23	Wm. Smith..... Brit. Med. Journ., July, 1868, p. 30.	Apathetic melancholy, indelicate, speaking only in monosyllables, and much of the time not at all, sullen and menacing.	Rapidly cured by conjoint use of iodide and mercurial. The symptoms first developed 3 months after chancre.

A study of the brief analyses of symptoms just given shows that syphilitic disease of the brain may cause any form of mania, but that the symptoms however various they may be at first, end almost always in dementia, unless relieved.

Of all the forms of insanity general paralysis is most closely and frequently simulated by specific brain disease. The exact relation of the diathesis to true, incurable, general paralysis, it is very difficult to determine. It seems well established that amongst persons suffering from this disorder, the proportion of syphilitics is not only much larger than normal, but also much larger than in other forms of insanity. Thus Dr. E. Mendel (*Progres. Paral. der Irren*, Berlin, 1880) found that in one hundred and forty-six cases of general paralysis, one hundred and nine, or 75 per cent., had a distinct history of syphilis, whilst in one hundred and one cases of various other forms of primary insanity only 18 per cent. had specific antecedents.

Various opinions might be cited as to the nature of this relation between the two disorders, but for want of space the curious reader is referred to the work just quoted and to the thesis of C. Chauvet (*Influence de la Syph. sur les Malad. du Syst. nerveux*, Paris, 1880) for an epitome of the most important recorded opinions.

Those who suffer from syphilis are exposed in much greater proportion than are other persons to the ill effects of intemperance, sexual excesses, poverty, mental agony, and other well established causes of general paralysis. It may be that in this is sufficient explanation of the frequency of general paralysis in syphilitics, but I incline to the belief that syphilis has some direct effect in producing the disease. However this may be, I think we must recognize as established, the opinion of Voisin (*Paralysie générale des Aliénés*, 1879) that there is a syphilitic peri encephalitis which presents symptoms closely resembling those of general paralysis. Such cases are examples of the Pseudo-paralysie générale of Fournier (*La Syphilis du Cerveau*, Paris, 1879)

The question as to the diagnosis of these cases from the true incurable paresis is of course very important, and has been considered at great length by Voisin (*loc. cit.*), Fournier (*loc. cit.*), and Mickle (*Brit. and For. Medico-Chirurg. Review*, 1877).

The points which have been relied upon as diagnostic of syphilitic pseudo-general paralysis are:

The occurrence of headache, worse at night and present amongst the prodromes.

An early persistent insomnia, or somnolence; early epileptiform attacks.

The exaltation being less marked, less persistent, and perhaps less associated with general maniacal restlessness and excitement.

The articulation being paralytic rather than paretic.

The absence of tremulousness: especially of the upper lip (Fournier).

The effect of anti-specific remedies.

When the conditions in any case correspond with the characters just paragraphed, or when any of the distinguishing characteristics of brain syphilis, as previously given in this memoir are present, the probability is that the disorder is specific and remediable. But the absence of these marks of specific disease is not proof that the patient is not suffering from syphilis. Headache may be absent in cerebral syphilis, as also may insomnia and somnolence. Epileptiform attacks are not always present in the pseudo-paralysis, and may be present in the genuine affection; a review of the cases previously tabulated show that in several of them the megalomania was most pronounced: and a case with a very pronounced delirium of grandeur, in which the autopsy revealed unquestionably specific brain lesions may be found in Chauvet's Thesis, p. 31.

I have myself seen symptoms of general paralysis occuring in persons with a specific history in which of these so-called diagnostic differences the therapeutic test was the only one that revealed the true nature of the disorder. In these persons a primary, immediate diagnosis was simply impossible.

Case fourteen of our table is exceedingly interesting because it seems to represent as successively occurring in one individual both pseudo and true general paralysis. The symptoms of general paralysis in a syphilitic subject disappeared under the use of mercury, to return some months afterwards with increased violence, and with a new obstinacy, that resisted with complete success anti-syphilitic treatment. Such a case is some evidence that syphilis has the power to produce true general paralysis.

In conclusion, I may state that it must be considered as at present proven that syphilis may produce a *disorder whose symptoms and lesions do not differ from those of general paralysis; that true general paralysis is very fre-*

quent in the syphilitic; that the only perceptible difference is one of curability; that the curable sclerosis may change into or be followed by the incurable form of the disease. Whether under these circumstances it is philosophic to consider the so-called pseudo-general paralysis and general paralysis as essentially distinct affections each physician can well judge for himself.

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EDITORIAL.

STRYCHNIA VS. ALCOHOL.

How best to control the effects of alcohol in the human economy, how to disarm this alluring poison of its most fearful manifestations, is a question which, next to the prevention of alcoholism, most appealingly addresses itself to the physician and demands from him an earnest consideration. Though we have, heretofore, found in the bromides, chloral, digitalis, ammonia and valerian, a series of agents which when given alone or combined, have proved more or less effective in the treatment of the acute manifestations of alcoholism, there is yet decided room for improvement in our therapeutic resources against its unfortunately too common and frequently intractable outbursts, known as *delirium tremens*, *mania à potu*, or the "horrors." In appreciation of this fact, we will devote part of our columns to the study

of an agent which, though of comparatively recent introduction in this field, can claim for itself a high position in the therapeutics of alcoholism—we mean strychnia.

According to Dujardin-Beaumetz, who has recently contributed a lucid and most interesting article on this topic in the *Bulletin Général de Therapeutique*, Jan. 15, 1884, the physiological antagonism existing between strychnia and alcohol was recognized by as old an authority as Giacomini, but the practical and rational application of the drug in the treatmeut of alcoholism was not known until Luton (of Reims) demonstrated its special virtues in a thesis published in 1873. In this paper Luton looks upon strychnia as *the* remedy for alcoholism, and especially *delirium tremens*. He has no hesitation in giving comparatively large doses of strychnia, frequently repeated, in this condition. He advocates, in cases of delirium tremens, two or three hypodermic injections of strychnia (representing 5 miligrams or $\frac{1}{13}$ grain, each) at various intervals during the day. Internally, he administers, in the course of twenty-four hours, three centigrams (about $\frac{6}{13}$ grain) of the alkaloid, broken up into fractional doses; or 20 centigrams (about 3 grains) of the extract of nux vomica, or again, 8 grains (about 2 drachms) of the tincture. (!)

Since Luton first published his clinical and physiological researches on strychnia in alcoholism, other observers have confirmed his results. As worthy of special mention in this connection, we would cite Amagat's experiments on rabits. This investigator first ascertained the toxic or lethal dose of alcohol for a rabit of specified weight. For instance, the lethal dose for a rabbit weighing 1900 grams, was found to be 12 grams. When to such a rabbit one miligram of strychnia was administered, simultaneously with the toxic dose of alcohol, the animal did not succumb, but stood with comparative ease a quantity of alcohol which would have otherwise killed it. The converse was equally found true, *i. e.*, that an otherwise lethal dose of strychnia was rendered comparatively innocuous by pre-

viously intoxicating with alcohol the animal experimented upon.

An interesting problem now presents itself for solution: In what way are these two drugs antidotal to each other, or by what mechanism do they effect their peculiar antagonism? This counteracting influence cannot be easily explained: but in attempting an explanation, Dujardin-Beaumetz gives us the following ingenious and plausible theory of the tolerance with which alcoholic subjects sustain large doses of toxic agents. The latter is a fact long since recognized, as any experienced practittoner can well attest, if he has ever tried Bence Jones' treatment of delirium tremens, with tablespoonful doses of tincture of digitalis, or by large doses of morphia. Beaumetz says: "In order that any medicine may produce its therapeutic or toxic action, it is necessary that it first act upon certain portions of the cerebro spinal axis; but before this impression is possible, it is necessary that the nervous elements be free from previous contamination (if we may so express it).

"The experiments made by Claude Bernard and Charles Thénard in this particular are interesting and instructive. Take a rabbit and anæthetize it with æther: after it has come thoroughly under the influence of the anæsthetic, administer a toxic dose of hydrocyanic acid. As long as the animal is under the influence of the æther the effects of the acid will not be manifested, but as soon as the etherial inhalations are suspended, and the animal awakes from its slumber, it is instantly struck dead by the poison. Here, it is evident that the previous impregnation of the cerebral cells by the ether temporarily saves the animal from the death-dealing action of the prussic acid."

In the drunkard the conditions of this experiment are very closely reproduced: in fact, the cerebro-spinal axis, especially the brain of the toper, is more or less permeated with alcohol, and the ganglionic centers, thus impregnated, resist to a greater or less extent the medicinal or toxic action of the substances administered in such cases.

As to the therapeutic action of strychnia in delirium

tremens, "it is," says Beaumetz, "*one of the most certain and effective known to me.* Since Luton's writings I have repeatedly made use of the drug for this condition in my wards at the St. Antoine hospital, and have invariably succeeded in attaining the desired object." "But," continues the same practical therapeutist, "is this antidotal action of strychnine exercised alike over all the manifestations of alcoholism; or, on the contrary, does it concern itself with only a few of the manifestations?" If we are to believe Luton, strychnia is the remedy for all alcoholic disturbances; it is the *specific* for alcoholism. This writer goes so far as to propose the admixture of a little strychnine in most alcoholic beverages, in order that their noxious effects may be mitigated; and even urges the government to enforce this "*sophistication*." "I cannot agree to any such proposition," says Beaumetz; "strychnia is simply a remedy *for some* of the manifestations of alcoholic poisoning, and these manifestations solely express the saturation of certain nervous elements with alcohol."

But the nervous manifestations of alcoholic poisoning, whether we refer to simple drunkeness or delirium ebriosum, are only some, and not all, of the phenomena; and strychnia can never be successfully opposed to the chronic inflammation of the viscera, gastro-intestinal disturbances, arterial atheroma, or even meningeal inflammations, all of which result from the irritating local action of alcohol. It is the *ensemble* of these lesions, which constitutes real alcoholism, and we can readily understand how strychnia is practically powerless against them.

Now, to sum up the question, we will state, with Beaumetz, that strychnia must be recognized not as *the* remedy or specific for alcoholism, but the most *energetic agent*, and the *one best adapted* to relieve the nervous symptoms of this condition, viz: drunkenness and delirium tremens. Strychnia may allow one to drink a great deal of alcohol without getting drunk, and it certainly counteracts very energetically the active delirium of the drunkard, but it does not prevent the occurrence of those profound visceral

and histological alterations, which constitute the real essence of alcoholic poisoning: and, which would, in reality, be favored by M. Luton's plan, as he would permit men to drink largely without apparent intoxication, and by thus cloaking the more repugnant manifestations of the poison, give a greater opportunity for the stealthy development of the occult but more deadly processes.

We would especially direct the attention of our readers to Dr. Day's timely communication. We have long thought that the profession of Louisiana, and in this city particularly, needed a strictly mutual benevolent association, and we are happy to see the suggestion given, so many years ago, by the late Dr. Hester, now taken up with such spirit and ability by our respected friend. We hope that the idea presented in this paper will not fall on barren ground, but will be taken up with the thoughtfulness they deserve, and be made the subject of serious discussion in our medical circles. We regret that lack of space forbids further expansion on this subject, which certainly ought to be one of the most interesting to the New Orleans practitioner. We hope that in our next we will have some favorable report to make which may fully supplement Dr. Day's valuable and opportune letter.

CORRESPONDENCE.

MESSRS. EDITORS:—A rainy and disagreeable day confines me to my office, and the gloominess of the hour has suggested a peculiar train of thought.

After an active and arduous professional life for nearly fifty-two years, and realizing sensibly in my own person the unavoidable encroachments of time, these thoughts are

not only allowable, but are eminently philosophical, and I hope will be useful.

In looking back over my files of the New Orleans Medical and Surgical Journal, I find in the March number of 1850, pages 692 and 693, the following pertinent remarks by our lamented and noble *Dr. Hester*.

"Our feelings have long prompted us to invite the attention of the medical profession to the necessity of establishing a *benevolent fund*, to be applied to the relief of those members of our common profession, and their families, on whom misfortune may lay her heavy hand. In a city like this, where health and life are constantly jeopardized, and where fortune does not always bestow her blessings upon the most deserving, the creation of such a *fund* will not only confer on us the luxury of doing good, but heighten and strengthen the bonds of good fellowship and union, which so happily exist among the medical men of this city.

To relieve the wants of the widow and the helpless orphan is one of the noblest aims of charity: but the duty is still more binding, and the pleasure sweeter, when those widows and orphans become connected to us through the strong ties of professional brotherhood. Let us obey the sacred injunction, and begin the exercise of our charity at home, in the profession, here: here, we shall find ample scope for the display of those benevolent feelings which should always, and everywhere, characterize the cultivators of the healing, the divine art of medicine. To the epidemic, which brings desolation, woe, and want to thousands, we are often exposed, alike regardless of ourselves and our families: and should the father and husband be stricken down, to whom shall his family, now cut off without support, and, perhaps, remote from relations, look for relief and consolation? Clearly, to that profession of which her husband was, perchance, a bright and shining ornament, and to the promotion of which he had devoted too much of his time and talents to the neglect of his pecuniary interest. And shall we not make common cause with the needy and destitute in the hour of want and woe?

In Europe societies similar to the one about to be proposed have long been in existence, and in successful operation. In London, one has been established for the last fifty years, and now possesses a funded capital of $225,000; it distributes annually among the widows and children of the deceased members about $7500. A similar benevolent society has been created in New York, under the auspices of Mott, Stearns, Stevens, Delafield, Post, Parker and others scarcely less noted. The history of the *London Benevolent Fund* Society has developed the astounding fact "that of the families of its members, deprived of their parental head, nearly *one fourth* are left destitute and dependent upon this fund for support."

Are we more fortunate in the accumulation of the means necessary to shield our families from want than our brethren on the other side of the Atlantic? If not, it behooves us to adopt some plan by which to relieve those dependent upon us for support in case of our death or disability. This done, the last moments of our existence would not be embittered by the painful reflection that we had bequeathed nothing but poverty and want to those near and dear to us.

Can any of us, around whose heart the holy ties of domestic affection are entwined, contemplate such a contingency without fearful misgivings and fearful forebodings for the future? If such there be, to those we do not appeal; but to such as love their families and seek the prosperity of their offspring, we know we shall not appeal in vain."

With the foregoing long quotation of the very forcible words of our departed Hester, we feel we might submit our cause to the enlightened physicians of the State of Louisiana, with an assurance of certain success, did we not know the indifference and the apathy clinging to the profession, and we fear, some times, selfishness as well, preventing or marring every noble effort for our common good and mutual benefit.

Whether the benevolent society, among the physicians of New Orleans, so forcibly argued by Dr. Hester in 1850,

was ever organized, I have never learned: but I have reason to believe never was: or if organized, it was short-lived, and to-day, we are without any such benevolent organization in this State. Surely it should not so be. Physicians, as other classes of the human family, frequently die without proper provision for their bereft families. They die poor, though having lived honorably and usefully. It is a charity, a noble charity, for the living physicians to contribute to the relief of the widows and orphans of their deceased brothers. And it can be done, too, without being oppressive in the slighest degree to living donors.

There are in this State upwards of one thousand regular licensed physicians, perhaps two thousand. Now if all, or one-half, of these physicians would organize and contribute the sum of five or ten dollars each to the widows and orphans of its members, upon the death of their parental head, it would give immediate relief to that family, and would bring about a consolidation and close brotherhood of the members, that would add to their usefulness, their happiness and self-respect.

We tried at the last annual meeting of the State Medical Society in Shreveport, to get such an organization endorsed or started under the auspices of that medical body, but it was not properly brought np, or not at the right time, and on account of other pressing business was not properly unfolded and explained.

It is simply a charity, a wise, benevolent and needed charity. A mutual and benevolent aid association among the regular physicians of the State, pledging each himself to contribute, upon the death of a member, a stipulated sum, say $10, to his widow and orphans for their relief.

Let this be done at once: and done without any complex machinery, involving expense and delay. Let it be a pure, simple and unadulterated benevolence, among the regular physicians of the State, for mutual aid and relief. Who will respond and suggest a time and mode of organization? Will you not, Messrs. Editors, or some of your medical

friends in New Orleans? I will close by one more quotation from Dr. Hester. He says: "Almost every trade and profession in all our great cities have established *benevolent societies* for the relief of such members and their families as may chance to come within the scope of their benevolent object."

Let us, then, follow the example of the artizan, the mechanic and the trader in this laudable scheme, that we may be enabled to relieve the widow and offspring of a deceased brother practitioner, who, perhaps, sacrificed his life in the honest discharge of his sacred duties. Without family or wife ourself, we cannot be accused of cherishing any selfish feeling in urging this matter upon the serious attention of our medical brethren.

We believe it a sacred obligation, resting equally upon us all, to bind ourselves in a holy cause for mutual assistance, mutual relief and protection.

Respectfully,

RICHARD H. DAY, M. D.

BATON ROUGE, LA., January 20, 1884.

New Orleans, February 20, 1884.

DEAR DOCTOR—Pending the approaching meeting of the Louisiana State Medical Society, which takes place at Baton Rouge, Wednesday, May 21st, during the session of the Legislature, I deem it proper that an official notice of the meeting should be given by circular, to members and to physicians throughout the State, with the hope that so auspicious an opportunity for concert of action in the furtherance of the objects of the Society shall not be without avail.

It may seem a work of supererogation to address an appeal to so enlightened a body as the physicians of Louisiana, to avail themselves of the advantages and privileges

of an organization having for its aim the promotion of the highest and best interests of the profession; but the past history of the Society leaves no apology necessary for a personal appeal of the kind.

The initial meeting held in this city to organize a State Medical Society was well attended, but from that time scarcely more than a bare quorum was present at any subsequent meeting, until the one of last year, held at Shreveport, when, through the earnest and praiseworthy exertions of the president, Dr. A. A Lyon, assisted by the physicians of that city, a large representation of the faculty, chiefly, however, I regret to say, from the country parishes, was secured, and the proceedings were enthusiastic and interesting.

Measures then adopted will have placed the Society on a permanent footing, if properly sustained in the future by its members.

It is high time that we should relieve ourselves of the humiliation past indifference and apathy have brought upon us in regard to efforts in behalf of the maintenance of a State Medical Society.

In view, therefore, of the fact that the forthcoming meeting will be held at the capitol of the State during the session of the General Assembly, all the members are urgently requested to be present, and to use their best endeavors to induce those of the profession who have not attached themselves to the Society, to attend the meeting and enrol their names as members; that for the first time in its history, the State at large may be represented, and collectively exert a legitimate influence in all proposed measures looking to the promotion of State medicine and public health.

Very respectfully,

J. P. DAVIDSON, M. D.,

President Louisiana State Medical Society.

Reviews and Book-Notices.

A Manual of Psychological Medicine and Allied Nervous Diseases. Containing the Description, Etiology, Diagnosis, Pathology and Treatment of Insanity, with Especial Reference to the Clinical Features of Mental Diseases and the Allied Neuroses, and its Medico-Legal Aspects, with a Carefully Prepared Digest of the Lunacy Laws in the Various States Relating to the Care, Custody and Responsibility of the Insane. Designed for the General Practitioner of Medicine. By Edward C. Mann, M. D., Member of the New York Medico-Legal Society, etc., with Photo-Type Plates and other Illustrations. Philadelphia: P. Blakiston, Son & Co., 1883. New Orleans: Armand Hawkins. Cloth: 8vo. pp. 699. [Price, $5.]

The great interest which has recently been developed in the study of psychology and mental alienation, and the fact that this has come to be recognized as a special branch of medical science, appears to have generated a veritable *cacoethes scribendi* in neurological specialists, and the result is, that works upon this subject are now becoming almost, if not quite, as thick as the traditional leaves in the renowned vale of Vallambrosa.

The book before us is divided into two parts. Part I. treating of Insanity, and Part II of Nervous Diseases.

That Dr. Mann has added anything to the literature of insanity is questionable, as nearly all that he has to say upon this subject has been said before, and, in many instances, better. Many of the contradictory and dogmatic statements of the author will hardly be accepted by the readers of the work, and his ultra pessimistic views in regard to the number of American people who are threatened with insanity, and his utopian ideas in regard to the means of prevention, are not likely to meet with the endorsement of the medical profession. That he at times appears to be afflicted with loss of memory is evident from the following: On page 44 we find him defining, or rather describ-

ing, insanity as "a disease of the body, affecting the mind by deranging its faculties, and causing such suspension or impairment of the action of the healthy *intellect*, *emotions*, or the will, as to render the individual irresponsible;" a clear committal to the somatic theory of the cause of insanity. Now, turning back to page 39, we find that "It is important, etc., to look to the bodily origin of the disease, but we must be careful, however, not to ignore psychical causes of insanity, as mania has frequently an emotional as well as a physical cause." Again, on page 51 we are told that in making our prognosis we "naturally search for a cause which may be purely psychic in the first instance," etc.

This is only one of the various instances in which the author evidently does not know his own mind, or intentionally (which we judge most probable) refuses to commit himself to either the psychological or somato-ætiological side of the question. That the proportion of insane to population has increased of late years, any one who has consulted the tenth census will hardly deny but that it is increasing to the alarming extent that Dr. Mann would have us believe is questionable. Neither can we endorse the pessimism of the author when he would have us believe that so many of the American people are threatened with, if not already on the very verge of, insanity. Precocious children, nervous infants, hysterical girls, all evidence a tendency to insanity, and the medical profession throughout the country is called upon to stay the rapidly growing evil—to treat all such cases early with the view of preventing their becoming future inmates of insane asylums.

The chapters on Diagnosis and Prognosis, and Expert Testimony, are meagre and unsatisfactory, but are fully compensated for by those on the "Pathology and Morbid Histology of Acute and Chronic Insanity," and the "Treatment of Insanity."

The one redeeming and valuable feature of the book is the large amount of statistical information which has been

incorporated, particularly Appendix A, which contains an abstract of the laws relating to the care and custody of the insane in the various States of the Union, by William J. Mann, Esq., of the New York Bar.

Part II, on "Nervous Diseases," is a decided improvement on the preceding, although the author begins it with his lugubrious views in relation to the complexity of life of the American people as a factor in producing all manner of bodily diseases, through its influence upon the nervous system. However, the subjects are ably handled and clearly and concisely exposed, so that the student of neurology will find much to repay him for having read the first portion. There is also added a chapter on the "Psychology of Crime"—a brief resumé of Benedikt's views upon this interesting subject, which is now being agitated by neurologists and alienists.

An appendix, containing the "Literature of Diseases of the Mind," is a valuable addition as a reference. We think that if the two parts had been published as separate books, it would have been a mutual gain to reader and publisher.

Fat and Blood. An Essay on the Treatment of Certain forms of Neurasthenia and Hysteria. By. S. Weir Mitchell, M. D., Member of the National Academy of Sciences; Physician to the Orthopœdic Hospital and Infirmary for Diseases of the Nervous System, etc., etc. Third Edition, Revised with Additions. Philadelphia: J. B. Lippincott & Co., 1884.

It must be a source of gratification to Dr. Mitchell to see the favor with which his treatment of Neurasthenia and Hysteria has been adopted after so much adverse criticism. The combined treatment of these and allied disorders by rest, seclusion and massage, with the use of electricity, when required, has become recognized as sound in principle and satisfactory in its results. It is for the purpose of pointing out in what particular cases the treatment is most likely to prove beneficial, and to instruct carefully and distinctly in the method of its use, that the author has re-

vised and sent forth the present edition. It has been almost entirely rewritten, and some valuable additions made.

What Dr. Mitchell's method is, perhaps, we all know, but we all do not know its minute details and the care with which it should be employed. As he says: "It is a remedy with capacity to hurt as well as to help;" and to prove beneficial it must be carried out systematically in only those cases where it can do no harm.

All of us who have had any experience in the treatment of hysteria are aware of the difficulties facing us in the treatment of these cases when surrounded by anxious friends, "the willing slaves of their caprices," and the benefits of seclusion from such surroundings is one of the important points insisted upon.

That absolute rest without exercise is harmful, is acknowledged, and it is to avoid this evil that the procedure, known as *Massage*, is added to the treatment. Chapter VI is devoted to a description of this aid to treatment, and full details are given of its method of application and the objects to be attained thereby.

The chapters on *Electricity* and *Dietetics and Therapeutics* are interesting and instructive.

This book should be in every physician's library. We recommend it to all interested in the treatment of nervous diseases, feeling confident that it will teach how good results may be obtained in the treatment of a large number of cases which would otherwise be left to drag out a miserable existence, the subjects of all those nervous phenomena which make life too often a burden to themselves and friends.

Handbook of Eclampsia, or Notes and Cases of Puerperal Convulsions. By E. Michener, M. D., J. H. Stubbs, M. D., R. B. Ewing, M. D., B. Thompson, M. D., S. Stebbins, M. D. Philadelphia: F. A. Davis. 1883.]

This is a 16mo. of 68 pages, containing reports of forty-four cases of eclampsia, and is devoted to the advocacy of

indiscriminate blood-letting in all cases of this affection. It required five men to bring it forth, all of whose names appear upon the title page.

> " 'Tis pleasant sure to see one's name in print;
> A book's a book, altho' there's nothing in 't."

Publications Received.

Researches on the Pulse-Wave: An Experimental Study. Inquiry into the Causes of the Variations of Pulse-Wave Velocity and Duration of the Cardio-Aortic or Presphygmic Interval, Observed in Man. By A. F. Keyt, M. D., Cincinnati, Ohio.

A Manual of Psychological Medicine and Allied Nervous Diseases. By Edward C. Mann, M. D., Member of the New York Medico-Legal Society, etc. Philadelphia: P. Blakiston, Son & Co.

Is Extirpation of the Cancerous Uterus a Justifiable Operation? By A. Reeves Jackson, A. M., M. D.

Medical Symbolism. By T. S. Sozinsky, M. D., Philadelphia.

The Dissectors' Manual. By W. Bruce Clarke, M. A., M. B., F. R. C. S., and Charles Barret Lockwood, F. R. C. S. Illustrated with 49 Engravings. Henry C. Lea's Son & Co., Philadelphia.

Annual Address Delivered before the New York Academy of Medicine at New York, Oct. 10, 1883. By Henry O. Marcy, A. M., M. D., President of the Academy.

Handbook of Eclampsia. By E. Michener, M. D., and others.

First Annual Report of the New York Skin and Cancer Hospital, 1884.

Legal Medicine, Vol. II. By Charles Meynott Tidy, M. B., F. A. S., Master of Surgery, etc. Henry C. Lea's Son & Co., Philadelphia, 1884.

The Field of Disease: a Book of Preventive Medicine. By Benjamin Ward Richardson, M. D., LL. D., F. R. S., etc. Henry C. Lea's Son & Co., Philadelphia, 1884.

Elements of Human Physiology. By Henry Powers, M. D., (Lond.) F. R. C. S. Illustrated with 47 engravings. Philadelphia: Henry C. Lea's Son & Co. 1884.

A Treatise on Pharmacy: Text-Book for the Student and Guide for the Physician and Pharmacist. By Edward Parrish, Ph. D. 5th Edition. Enlarged and throroughly revised. By Thos. F. Weigand. Henry C. Lea's Son & Co., Philadelphia.

Traite de l'Affection Calculeuse du Foie. Par le Docteur Jules Cyr, Paris, V. Delahaye et Lecrosnier, 1884.

Fifth Biennial Report of the Board of Health of Maryland, January, 1884.

The translations and a good deal of editorial matter, which should have appeared with this issue, have been suppressed on account of the large number of original contributions calling for publication in this number of the Journal. We shall endeavor to do full justice to our contributors and readers in our next number.

Current Medical Literature.

What is the Value of the Permanganate of Potash as a Remedy for Snake-Bites?—[On Jan. 28th, 1884, Sir Joseph Fayrer entertained the Medical Society of London with one of those masterly discourses, which have for so many years made him famous in the medical world. On this occasion, he returned to a favorite topic—snake-bites—a subject which he has deeply and perseveringly studied, and which has, probably, more than any other, closely identified him with the medical literature of British India. Among the numerous and important details of the paper, that which related to the treatment of snake-bites, by the exhibition of potassium permanganate, as recommended by Lacerda, of Brazil, was probably the most instructive and interesting. The general interest which this subject necessarily has to the profession, and the incidental fact that M. Lacerda, very recently, received $20,000 from the Brazilian Government for the supposed discovery of a certain and efficacious antidote to the venom of the ophidia, will tend to make these critical, and certainly authoritative, remarks, by Sir Joseph Taylor, highly interesting to most of our readers.—Eds.]

Let me now make some remarks on the remedial value of permanganate of potash. During my investigation of the value of remedies for snake-poisoning, permanganate of potash was not omitted, and I made the following experiments:

June 12th, 1869. 1. A fowl was bitten by a cobra in the thigh at 3 P. M.: at 3.1 fifteen drops of solution of permanganate of potash were injected into the spot; dead in seven minutes, 3.35. 2. Forty drops of solution of permanganate of potash were injected into the external jugular of a dog. This produced no apparent effect on the animal. At 3.48, it was bitten by a cobra (which had bitten before and was not fresh) in the thigh; the fang-punctures were at once washed with the strong solution of permanganate, which was well rubbed in; 3.52, sixty more drops were injected into the vein; 3.54, two drachms were injected into the bowel, all the symptoms of cobra-poisoning advancing rapidly; 4.12, forty more drops were injected into the jugular vein; 4.25, the animal died, thirty-seven minutes after the bite.

In 1878, Dr. Brunton and I made the following experiments, which confirm the power of the permanganate to neutralize the poison before it has entered the circulation, but show its inefficiency when it follows it:

Experiment 1.—Five milligrammes of poison were dissolved in one cubic centimètre of water, and mixed with one cubic centimètre of liquor potassæ permanganatis of the *P. B.*, and injected under the skin of a guinea-pig. No symptoms were produced, and the animal remained quite unaffected.

Experiment 2.—Two rabbits of the same litter, each weighing exactly 2 lbs., were taken. Five centigrammes of cobra-poison were dissolved in one cubic centimètre of liquor potassæ permanganatis (*P. B.*) and allowed to stand for about eight minutes. The mixture was then injected under the skin of the flank of one rabbit. No symptoms whatever were produced, and the animal, though kept under observation for some weeks, remained quite unaffected by the poison. Five milligrammes of cobra-poison, dissolved in two cubic centimètres of water, were injected into the other rabbit at the same time. During the injection a little of the poison was lost, so that the animal did not receive the full dose, yet it died in thirty minutes.

Experiment 3.—April 4th, 1878. Guinea-pig, weighing 1½ lbs.; injected four centigrammes of cobra-poison into the leg. 4.1 P. M., ligature applied immediately; permanganate of potash applied immediately. 4.5 P. M.,

twitching; 4.10 P. M., dying: 4.13 P. M, convulsion; 4.14 P. M., death.

Experiment 4.—April 4, 1878. Guinea-pig, weighing 1 lb.; 3.45′ 20″ P. M. Injected ¾ grain (=4 centigrammes) of cobra-poison, under the skin of the leg. A ligature was applied round the leg in one minute, and in five minutes permanganate of potash was rubbed into an incision made over the site of injection. At 3.52 P. M., ligature cut; 3.53, twitching violently, leg paralysed; 3. 57 P. M., dying; 3.58 P. M., dead—less than thirteen minutes.

Dr. Wall, who has carefully investigated the subject, makes the following pertinent remarks (*Indian Snake-Poisons*, p. 129): "As it was found that potassium permanganate does destroy the poison, steps were taken to see if it would be of any practical use in the treatment of animals suffering from snake-bite. It was found, by experiment, that a considerable quantity of potassium permanganate, dissolved in a weak saline solution, could be injected into the circulation of an animal without producing any immediate effect (I found the same with a strong solution). A dog, suffering from cobra-poisoning, had a cannula placed in its saphena vein; a solution of potash was injected, but, though a large quantity was cautiously and gradually introduced into the circulation, and though at the same time life was prolonged by artificial respiration, in no way was the least benefit to be perceived from the remedy. The reason is obvious. It is quite true that potassium permanganate destroys the active agent of cobra-poison by oxidizing it; but, when introduced into the blood, it of course commences oxidizing indifferently all the organic matter with which it comes into contact: but it has no power of selecting one organic substance for oxidation rather than another. The oxidizing power of the permanganate is, therefore, exerted on the constituents of the blood generally, instead of being reserved for the cobra-poison in it alone; so, if cobra-poison be dissolved in an organic solution, and the permanganate be added before injection, the poison suffers little, if any, diminution in strength, for oxidation has taken place chiefly at the expense of the other organic matter Thus, it would be necessary to destroy all the constituents of the blood by oxidation before all the poison in it could be destroyed too. If a substance should be found having the power of oxidation, with a special affinity of exercising it on snake-poison, the problem of

the treatment of snake-bite would be solved, but potassium permanganate has not the special power."

It has been pointed out that there are other substances which greatly diminish or destroy the action of snake-poison when mixed with it out of the body. Of all such agents, permanganate of potash is probably the best; still it seems to be of little value in practice.

Wall further remarks: "It may be asked why, if metallic salts, tannic acid, hydrate of potash, and permanganate of potash, destroy snake-poison, should not these substances be used in preference to excision. The reply is obvious. If we could know the exact position of the poison, and if there were only one deposit, we might probably succeed in destroying it by injection. But to remove the poison deposited by the bite of a snake requires a most intelligent observation, guided by eye, sight, and judgment. But an injection of a chemical agent must be, to a great extent, made by guess-work, and the solution, instead of following the poison, takes the line of least resistance in the tissues, often leading it far from the poison."

* * * * * * * *

After careful consideration, fully admitting that in permanganate of potash we have an agent that can chemically neutralise snake-poison (as indeed was shown by Dr. Brunton and myself in 1878), I do not see that more has been done than to draw attention to a local remedy already well known as a chemical antidote, the value of which depends upon its efficient application to the contaminated part (which Dr. Wall has pointed out is too uncertain to be reliable). We are still then as far from an antidote as ever; and the remarks made by me in 1868 are as applicable now as they were then; they were as follows:

To conceive of an antidote, as that term is usually understood, we must imagine a substance so subtle as to follow, overtake, and neutralise the venom in the blood, and that shall have the power of counteracting or neutralizing the poisonous and deadly influence it has exerted on the vital force. Such a substance has still to be found, nor does our present experience of drugs give hopeful anticipations that we shall find it. But I repeat that where the poisonous effects are produced in a minor degree, or where the secondary consequences are to be dealt with, we may do much to aid the natural powers in bringing about recovery."—*British Medical Journal.*

Some Recent Investigations on Germs.—[The following letter has been received at this office. The author, Herr Riechschwamm, does not belong to our staff of special correspondents, nor is he personally known to us. He signs himself, "First Assistant to Dr. Hahn," but upon reference to the last volume of the *Mittheilungen aus dem Kaiserlichen Gesundheitsamte*, Magdeburg, we do not find his name among the Hülfsarbeiter. These facts, together with the very remarkable results of the investigations he reports, have led us thus to inquire into his trustworthiness. We have felt it incumbent upon us, in publishing his letter, to make this prefatory statement, rather than to withhold information of these latest researches, which are certainly calculated to arrest our attention, even if they do not immediately commend themselves to our unreserved acceptance.—Ed.]

Magdeburc, January 31, 1884.

To the Editor of the Medcal News:

Sir: I have thought that some account of the recent discoveries in regard to bacilli might interest readers who are remote from the great radiating centres of constructive science. The latest of these discoveries is even yet spoken of here with caution, but by the the time you have printed this, it will have revolutionized one branch of physiology, and produce an evolution of novel ideas, the final results of which not the boldest can predict. But before outlining for your readers a discovery which I am priviledged to communicate by permission of Professor Coccischlächter, and before it has been fully published at home, it may be well to describe the Krankheitenursprungsanstalts—Museum of Bacilli—collected by the Herr Oberprofessor Keimerzeurger von Verdammtnarrburg.

This has been at the cost of one life upon the alter of science. The museum is a room about thirty feet square, with double walls of glass, between which circulates water kept at a temperature of 30 C. by three gigantic thermostats, which are so accurate that the heat does not vary the one-fifteenth of a degree. Ranged along the sides, exposed to air or under glasses, are hundreds of half potatoes, on which grow various bacilli: of late, however, boiled cabbage is said by Keimerzeurger to answer better. Certain specific cocci flourish on the Beta altissima or mangel wurzel, but as to this choice of cultur gartens more is to be said. To walk through this museum with the Herr Professor Keimerzeurger is interesting. Before entering, a mask

is given you, and bottle of condensed oxygen, so as to enable you not to inhale the atmosphere loaded with germs. In tones muffled by the need to speak within the mouth-piece, you learn that to the left is a tubercular potato, its service gray with the potencies of countless deaths. Near it the bacillus of gonorrhœa flourishes on the cut surface of the succulent beet, beside the ruddy germs of syphilis. Scarlet fever infests this potato, diphtheria that. The new bacteria of pneumonia flourishes on a boiled watermelon; and glanders, cholera, small-pox and hydrophobia spread in tiny greenish growths over the little gardens of gelatine. For a moment, in my interest, I displace my mask. The professor instantly seized me and hurried me from the room. "What a risk!" he said: "my last assistant did as you did, and died in seven days of acute phthisis, with symptoms of hydrophobia and whooping-cough, combined in horrible equality." I did not desire to reënter this box of Pandora. In adjoining apartments of less size are the experimental cultivations, those which are still in doubt. Among the most interesting is the micrococcus of gout, found to flourish best upon gelatinized turtle soup.

A most striking practical result has grown out of some of Coccischlächter's and Keimerzeurger's later researches. They have been able to show that the bacterium of colic flourishes on the green apple, which accounts for the gripes experienced by youthful gourmands. But far more remarkable is the fact that certain micrococci and bacteria die, as proved by Coccischlächter, in some culture materials, and thrive, as shown by Keimerzeurger, on others. Thus the tubercle bacilli flourish on boiled cabbage (Keimerzeurger), but perish on moist saur-kraut (Coccischlächter), so that by a persistent diet of the latter article they have been able to saturate some of their devoted assistants up to the point of insusceptibility, a discovery which will, we trust, put an end to the cavils at the failure of these researches to yield practical results.

Most startling of all is Herr Keimerzeurger's latest result. He has been able to show that the inconvenient monthly sickness know as the menstrual flow is a non-essential of female life, and is due to a peculiar bacillary growth. It is at once and for many months destroyed by the growth of the bacterium virilis, long misapprehended as a spermatozooid, This latest discovery has been received with derision in France, but Hahn has given it his support, and in my next I shall report his confirmatory experiments.

RIECHSCHWAMM.
First Assistant to Dr. Hahn.

[*Med. News, Feb.* 16, 1884.]

Citric Acid in Frost Bite.—Lapatian, a Russian surgeon, who has had considerable experience in the treatment of frost-bites among the troops in the late Turkish war, says that a mixture of equal parts of dilute citric acid and peppermint-water is an effectual cure for frost-bite.—*Canada Lancet.*

A Crowning Honor to Charcot.—At a meeting held November 12, the French Academy elected Prof. Charcot a member to succeed the late Baron Cloquet, the eminent anatomist. Sappey contested the election with Charcot, but was defeated by over thirty votes majority in favor of the latter.

A Hint.—Dr. Clevenger, of this city, suggests as a ready means of ascertaining the existence and location of small abrasions, needing a touch of the caustic before holding a post-mortem examination, the holding of the hands over strong aqua ammonia for a moment, when the smarting will quickly reveal all the sensitive or abraded places, however minute.—*Journal Am. Med. Association.*

NOTICE.

Referring to the letter from the President of the Louisiana State Medical Society, page 722, the Chairman of the Committee on Reports and Essays requests that members who contemplate presenting papers at the coming meeting will forward the same to him, or some other member of the Committee, before May 1st, so that the necessary arrangement can be made for their reading, in accordance with section 5 of article IV of the By-Laws.

The following are the names and addresses of the members composing the Committee:

Dr. L. F. Salomon, New Orleans, Chairman; Dr. T. G. Ford, Shreveport; Dr. S. M. Bemiss, New Orleans; Dr. R. T. Gibbs, Mansfield; Dr. J. D. Hammonds, Lindgrove.

THERAPEUTIC VALUE OF DUSART'S LACTO-PHOSPHATE OF LIME IN OSTEOCOPIC PAINS.

[Dr. Arthaud, in *Le Courier Medicale.*]

From the first months of its life the healthy and vigorous child freely exercises its arms and legs, and manifests its joy when it is held upright upon the knees of those who are called upon to care for it.

This does not happen when certain troubles, which we are about to describe, occur. The little beings are seen to lie immovable in their cradles, shrunk up, in contorted positions, and uttering acute cries, and when a motion is made to take them up, or when it is attempted to place them in an upright position, they remain obstinately doubled up. It will be observed that not only the joints, but all the bones, without exception, are painful. And this, notwithstanding that at the beginning of these phenomena the flesh retains its freshness and no deformity manifests itself about the joints. It is only after a certain time that cachexia manifests itself and articular swellings are observed. Take, for instance, a youth during a period of rapid growth. We shall see that in a few weeks his gayety and liveliness have given place to sadness and a profound indifference as well for work as for play. Question him, and he will tell you that he suffers in the joints, and even in the continuity of his limbs, with dull pains, easily exaggerated by the least movement.

Besides, if we observe certain women during the progress of pregnancy, we hear them, especially about the sixth or seventh month, complain of general lassitude with more or less sharp pains in all the joints. Often these young women present all the appearance of false plethora. It is not necessary to search long to find in these three conditions a single and common cause—"*Mineral inanition.*"

In fact, if we investigate the antecedents, we find that for some time before commencing to complain or to lose flesh, the child has been receiving food poor in salts of lime, or in which these salts are found in such a state that the digestive organs cannot assimilate them. And as the nutritive juices cannot take on the solid state and pass into the formation of tissue

without the intervention of the phosphate of lime, the organism, to supply the deficit caused by improper food, borrows from the skeleton the salt which is wanting, and after a time the impoverished bones become the seat of serious trophic troubles, while the soft tissues continue to develop. It is not until later when the reserve phosphate of the bones is exhausted, that the pathological phenomena manifest themselves in the digestive tube and other organic systems.

The same thing occurs in the youth, with the exception that the bones, being less cartilagenous, do not have the same tendency to become deformed.

The cause of osseous pains in the pregnant woman is equally plain.

It shows itself in the young mother, who cannot furnish the reserve lime salts sufficiently during the first months of pregnancy, and who presents neither the increase of weight of all the bones, nor the osteophytes which sometimes cover the flat bones and which were formerly supposed to be errors of nutrition. Towards the end of pregnancy, when the development of the fœtus goes on with peculiar rapidity, the mother being obliged to furnish large quantities of lime phosphate, it is borrowed from its proper places and so impoverishes them as to prevent her from properly assimilating her food. From this arises the pain in the bones and the infiltration of the flesh by elements which maintain in a fluid state the preponderance of alkaline salts, which are almost entirely deprived of phosphate of lime, which is alone capable of fixing them in a solid state.

If observation of symptoms is not sufficient to demonstrate what is found in these three conditions as being due to *mineral inanition*, such as described by DUSART, the results produced by treatment do not permit of doubt.

The same medicine succeeds in a short time in one case as well as the other, and this medicine is no other than the *phosphate of lime*, particularly when administered in the form of *lacto-phosphate* as prepared by DUSART.

When taken in the form of wine or syrup, the lacto-phosphate of lime acts with rapidity. From the first day the patients recover their appearance. Their appetite improves and within eight or ten days the movements, instead of being dreaded and painful, become quick and easy. The flesh resumes its fairness and color; in a word, the condition becomes normal as soon as the food is supplied with the indispensable complement of which it was at first deprived, and without which it could not be assimilated, that is to say, fixed in the tissues.

METEOROLOGICAL SUMMARY—JANUARY. STATION—NEW ORLEANS.

DATE.	Daily Mean Barometer.	Daily Mean Temperature	Daily Max. Temperature	Daily Min. Temperature	Daily Rainfall, inches.
1	30.141	46.3	63.5	37.0	.54
2	30.371	34.5	39.0	27.8	....
3	30.380	38.8	45.5	32 0	....
4	30.229	53 0	61.5	37.0	.02
5	30.347	35.5	54.0	29.0	.15
6	30.303	32.7	39.0	22.5	....
7	29 997	43.7	57.0	30.4	.50
8	30 171	32.8	39.7	24.7	....
9	30.140	41.8	50.5	30.0	....
10	30.024	58.3	66.5	40.5	.20
11	30.182	50.0	63.4	41.0	.11
12	30.367	44.5	54.0	35 0	....
13	30.193	51.8	61.5	42.0	....
14	29.942	60.7	70.5	47.8	.18
15	30.160	53.3	66.5	48.2	....
16	30.352	47.5	54.6	44.9	.08
17	30.265	47.4	49.8	41.0	.20
18	29.943	58.1	65.0	46.6	.82
19	30.157	49.3	56.7	45.4	....
20	30.500	40.2	46.7	35.5	....
21	30.633	38.9	44.9	31.6	....
22	30.349	46.3	54.4	33.6	....
23	29.898	56.3	65.0	45.3	1.05
24	30.211	37.4	53.7	30.0	.37
25	30.474	34.4	40.0	28.0	....
26	30.483	38.4	48.3	28.2	....
27	30.418	47.9	54.0	37.4	....
28	30.366	55.3	64.5	45.2	....
29	30.349	55.9	64.3	46.3	....
30	30.213	63.3	72.0	51.0	....
31	30.055	65.4	72.0	57.5	.13
Sums	.....	....	....	....	4.35
Means	30.246	47.1	56.1	37.8	....

GENERAL ITEMS.

Highest Barometer, 30.716. 21st.
Lowest Barometer, 29.760. 23d.
Monthly Range of Barometer, 00.956.
Highest Temperature, 72.0. 30th.
Lowest Temperature, 22.5. 6th
Greatest daily range of Temper't., 26.6.
Least daily range of Temperature, 8.8.
Mean daily range of Temperature, 18.3.
Mean Daily Dew-point, 37.7
Mean Daily Relative Humidity, 71.3.
Prevailing Direction of Wind, N.
Total Movement of Wind, 6817 Miles.
Highest Velocity of Wind and Direction, 30 Miles, N.
No. of foggy days, 1.
No. of clear days, 10.
No. of fair days, 14.
No. of cloudy days, 7.
No. of days on which rain fell, 13.
Dates of frosts, 2d, 3d, 4th, 6th, 8th, 9th, 12th, 13th, 21st, 22d, 26th.

COMPARATIVE TEMPERATURE.

1873	49.5	1879	53.1
1874	56.0	1880	63.2
1875	54.2	1881	50.4
1876	64.3	1882	62.4
1877	53.7	1883	56.8
1878	51.0	1884	47.1

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	5.06	1879	2.34
1874	1.68	1880	1.02
1875	8.44	1881	11.15
1876	4.42	1882	4.54
1877	5.39	1883	10.63
1878	5.36	1884	4 35

M. HERMAN, *Signal Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM JANUARY 27TH, 1884, TO FEBRUARY 23D, 1884, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia	Total Mortality.
February 2.....	0	2	33	21	14	156
February 9.....	0	9	22	9	16	157
February 16.....	0	7	13	16	11	119
February 23.....	0	3	29	17	6	140
Total.....	0	21	97	63	47	572

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ERRATA IN DR. PAUL VON SEYDEWITZ'S ARTICLE ON DEGENERACIES, ETC.

Page 746, line 2 from above, read: *workingmen's* instead of "workingmen."

Same page, line 9 from below, read: *scientists* for "scientist."

Same page, line 8 from below, read: *is the affirmation*, instead of "is *not* the affirmation."

Page 751, line 19 from below, after the words "malaria, etc." there ought to be a point of interrogation (?) instead of exclamation (!).

Page 759, line 18 from below, read: *humor irascibilis* instead of "humor irrascibilis."

Page 762, line first in the foot note, read: *civilisation* instead of "civilization."

Page 763, line 26 from above, last word on that line, read: *Marc* instead "Mare."

In the foot note (same page) read: *Archives Generales de Medecine* instead of "Archives Generales de Médecin."

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

APRIL, 1884.

ORIGINAL PAPERS.

On Degeneracies and the Alleged Increase of Mental Disease and its Causes.

BY DR. PAUL VON SEYDEWITZ,

Formerly Senior Physician to the East-London Hospital for Sick Children and Dispensary for Women.

The recent wife-murder and suicide of a well-known lawyer in our city, who in spite of the deliberate manner in which he shot his wife before cutting his throat, from ear to ear, seems surely to have been prompted by a deranged mind, and draws once more the attention of our readers to the sad fact of rapid increase of deeds of violence among the so-called better classes of society in this country and of the so-called suicidal-mania in general. The leading motive in the case seems to have been financial troubles, brought about by intemperance.

From a medical standpoint, we have not only a perfect right, but it becomes the duty of the profession, to investigate the causes of such morbid brain organization leading to crime.

In Europe, too, the alleged increase of insanity has of late, so alarmed the public at large, that scientific investigation of its chief physical and moral causes is now again the

order of the day. We notice, for instance, an article in a Berlin weekly paper, from the able pen of Dr. Robert Schirmer, on the connection between culture and insanity, in which our colleague attempts to show how the two are going hand in hand with regard to their increase. This alleged fact, which we deny, does not excite the astonishment of mankind; and if our readers should bestow some of their leisure time to reading statistics, they could soon perceive, how, in almost all civilized countries, the frequency of mental derangement is said to be steadily on the increase.

The question, therefore, whether there really exists a *nexus causalis* between increasing culture and increasing insanity, has always been, and is, in our opinion, a proper one; and, as Dr. Schirmer gives an elegant expression to ideas tending to prove the affirmative, we may as well follow a while his train of thought, and treat at first the subject exactly as he does, adding however, afterwards our ideas on the subject, together with birds-eye-views of our own, supported by facts which either came under our observation, or to which our attention was drawn by competent men, and always reserving, of course, the right of criticism.

Dr. Schirmer incipiently remarks, that the state of health of the human brain depends chiefly on two conditions which, though quite different in themselves, are of equal importance:

1st. Of the power of resistance the brain is able to oppose to external injuries, and

2d. Of the nature, strength and pathological irritation by which the brain is affected.

In this we agree, for it is obvious from the outset, that a brain which is less able to offer resistance, will be more readily affected by already feeble and rare irritation. All we, therefore, want to know, is, *whereby* the diminution of the power of resistance of the most essential part of our central nervous system is brought about.

Weakness of the brain, as such, may be either congenital

and the product of an inherited mental disorder, or it may be acquired in later years, and then be free from any hereditary taint. Children, for instance, procreated during a state of intoxication, or the offspring of unfavorable marriages, especially those between near relatives, furnish the specimens of the latter category; while the former, the hereditary complaint, presupposes that the parents themselves, or at least one of them, were not of a sound mind, or at least not of a thoroughly sound mind. For it is not at all necessary that the parents, or one of them, were actually under the influence of acute mental disorder at the time of procreation, or, if the mother alone is involved, during the time of gestation, to implant in the offspring the germ of a subsequent mental disorder, which in its turn may remain half a lifetime, and more, dormant in the system, and under favorable circumstances change its latent condition into an acute one. Corporeal ailments, and especially such diseases as tuberculosis, high graded anæmia, scrofulosis, etc., are also quite sufficient to taint the offspring with a weak brain from the time of its birth, besides tainting it with a general distemper.

Now, if Dr. Schirmer, with regard to Europe, is right in asking whether the three above named diseases do not represent a fearfully high percentage in all the larger cities, we are quite as much entitled to ask the same question, expecting an affirmative, with regard to the United States. There and here this is surely owing to the bad hygienic conditions of these large centres of population, and we fairly may add: the worse these conditions are, the higher will be, with regard to the three named diseases, the percentage in the mortuary statistics.

Our New Orleans proves no exception, in spite of the paradoxical assertion we have frequently heard during our stay here: "The Crescent City is, epidemically, healthy."

Not writing a treatise, but a mere article, we shall abstain here from closer investigation as to the condition of the soil itself as chief culprit. A more minute investigation, however, has already established the nefarious in-

fluence of the argillaceous soil, with regard to phthisis and tuberculosis, and we remember having seen at Milan a graphic medical description of the topography of that splendid city, where this telluric influence was forcibly shown by a map, drawn up with due regard to the mortuary register, comparing the parts of the city which were of different soil. We regret that the name of the author has escaped our memory, but as we speak of this only incidentally, it does not matter. Perhaps some younger and more able brother of the profession, having more time at his disposal than we have, and craving for an opportunity to make himself useful to humanity in this direction, may feel inclined to take up the matter where we leave it here: and if he does, we can promise him that he will labor on a thankful field, because much is yet left to be said on this telluric subject. Though we willingly concede that, with regard to phthisis, the obnoxious condition of a clayish soil will be successfully combated and wholesomely altered by an intelligent system of drainage.

The rapid growth of commercial cities, the gigantic increase of traffic and the unbounded tendency for centralization, noticeable everywhere, must be considered as excrescences of modern civilization. In this assertion, we side with Dr. Schirmer.

All the factors which unfavorably influence the human organization, and especially the brain, are nowhere more intensely at work than in the large and metropolitan cities. There you find the accumulation of proletarism, and consequently the prevalence of pauperism; there flourishes luxuriant demoralization, egotistic celibacy; there are found the contrasts of mental and physical plethora and famine as the outgrowth of large manufactories, counting by hundreds and thousands of hands; there prosper in all their nefarious poison-blossoms vice and depravity of all kind; and, above all, there you see everywhere the all-consuming craving for riches, and luxury.

But "pauperism," "proletarism," "celibacy," "all-mighty-dollar-hunting," etc., have become watchwords by

which we are wont to designate, and in the opinion of mankind, judiciously, too, the social causes which produce mental disorder of all kinds, swelling the mortuary statistics under the rubric of nervous perturbation and brain-disease. It is true that, by reasoning more exactly, one ought to say, the above named causes could produce only the diathesis for mental alienation in furnishing, so to say, the fertile soil in which the seed corn will quickly thrive: but, as here cause and effect are so intimately connected with each other, we may, in this instance, fairly dispense with the Socratic "*distinguo.*"

The struggle for existence, another favorite watchword, as we all know, is nowadays not only far more active than at any period before, except in time of public calamities, such as during a plague, large epidemics, famine, etc., but more than ever, people have to fight that struggle by means of their brains. No wonder, therefore, that this life-organ is, on an average, more taxed than at any previous period in the history of humanity, and especially in the history of culture. We shall see, hereafter, that it is contended not alone to be more taxed, universally speaking, than at any time previous to our days, but said to be overtaxed, wherefore it is said to simply break down frequently like an overloaded waggon of which the axle is not overstrong. Happily however for humanity, brain-power, like muscle-power, waxes, by exertion, and thus becomes in direct ratio of its exertion proportionately developed and thereby more capable of accomplishment. Surely this has not yet been demonstrated anatomically, but we may hope that it will be so at some future day, when the comparative anatomy and pathological investigation of the brain of the mammalia will have been more advanced and Meynert's method will be followed more extensively by scientists. Of that method we shall speak hereafter; meanwhile our proposition holds its ground, even without such anatomical demonstration. It cannot be denied, and besides the history of the world proves it emphatically, albeit incidently, how much the human brain has become gradually and steadfastly improved by unfolding its higher mental activity.

Unfortunately, on the contrary, it is equally true that we must see in this more universal refinement of the human brain a sort of pandora-box-gift, since it goes hand in hand with a greater vulnerability; and this leads us to another proposition, viz: the more complicated a machine is, the less durable it becomes.

We may perhaps, in considering the highly developed state of the human brain amongst the ancient Greeks at the time of Pericles, or of the Egyptians, centuries previous to that epoch, object to such a contention. But let us remember, too, that the Greeks and Egyptians of old had their brains developed more or less in one or two directions only (arts and politics), and that the bulk of the people living, so to say, in the open air and *en famille*, did not toil and work with the morbid craving for riches as in our times and, that, as a whole, humanity was then yet so much younger. Of the few gifted and talented men at all times and amongst all peoples, we need hardly speak, for they simply confirm the rule by the exception, for genius always have been and ever will be the exception and not the rule.

The greater vulnerability of the brain in the present state of culture of the human race, rendering it, as it is said, less endurable, would explain at the same time to a notable degree how it happens that in some families, remarkable for talent and refinement, single members show indubitable signs of idiocy. This leads to a new proposition, viz: the finer organization of nerve elements yielding only too readily, leads, under unfavorable circumstances and conditions, to psychical degeneration.

The question itself is not a very new one, though the author who first of all wrote a treatise in the sense of modern psychiatry on the physical, intellectual and moral degeneracies of the human race, and the causes producing them, be hardly dead.* The late Dr. Morel, the author of whom we speak, was a well known

* *Vide:* Traité des dégénerescences physiques, intellectuelles et morales de l'espèce humaine et des causes qui les produisent, par le Dr. B. A. Morel. Rapport fait à la Société Médico-Psychologique, par M. A. Buchez. (Extrait des Annales Médico-Psychologiques.) *Paris:* Librairie de Victor Masson, 1857, 12mo.

French alienist, formerly Chief Physician and Director of the Lunatic Asylum at *Marèville*, Dépt. de la Meurthe, not far from *Nancy*, in Lorraine, France, and afterwards Chief Physician and Director of the Lunatic Asylum at *Saint-Yon*, at *Rouen*, Dépt. de la Seine Inférieure. He showed to the writer, some 30 years ago, when he was yet at Maréville, carefully compiled statistics of eldest and youngest children of workingmen, peasants and paupers, which he afterwards continued at Rouen, where he died, and where the writer saw him last (early in 1857), in which statistics the intellectual state of those children, which for the greatest part had come under the doctor's own observation, were carefully noted and commented upon. We do not know whether these interesting and laborious statistics were ever published, for in the work quoted no mention of them is made, but the question of degeneracy is masterly treated therein on its broadest basis, and on general principles, as every pioneer work should be. It must have been written about 1856.

Besides the just mentioned statistics, Dr. Morel had, in 1857, other statistics under his pen about the children of convicts and felons, undertaken in the same view than those of the children of the working classes and peasantry. But as all such long-winded labors, when based chiefly on personal observation, must be continued for a good number of years before reliable conclusions can be drawn from them, we should not wonder to learn that Morel's statistics were left to the care of others to be completed and published. So far as his observations went in 1857, they were in favor of the oldest children in regard to the intellect, and the writer was told by his learned colleague that, basing his judgment upon his statistics, so far as they were advanced, he should not hesitate to contend that the greater percentage of weak intellect and mental disease, especially in the north and east of France, observed amongst these children, belonged to the younger offspring, and that their number increased when there had elapsed some 15 or 20 years between the birth of the eldest and youngest child. Further-

more, he contended that the greater portion of these workingmen, and laborers' children of unsound mind, coming under his notice or treatment, were *boys*, whose parents, or one of them, and in that case generally the father, had, on an average, at the time of their procreation, become drunkards.

Anyhow these observations seem to show that the laws of primogeniture in the olden feudal times, which still exist among sovereigns and the nobility of some countries, for instance the English nobility, have quite a philosophical bearing of their own, which is none the less remarkable, albeit our forefathers, most likely, were the very last to be conscious of it.

Of course, we cannot enter here more deeply into this question which touches our subject only incidently, but with regard to the physical, intellectual and moral, degeneracies of the human species, as set forth in Dr. Morel's treatise, and by other eminent French alienists, and ourselves, we must say something yet, for here the bearing on our subject becomes more forcible and direct.

Let us, then, first insist upon the fact that the question, is, so to say, a contemporaneous one. Buffon was the first who spoke of degeneration, but what he meant was merely a physiological modification and not an alteration of the human nature. The naturalists, who followed Buffon, speak of degeneracy in a sense that modern scientists would either call degradation or improvement, as the case may be, and if Lacepède applies the term degeneration to cretinism and albinism, he adds that these are only individual accidents. What Morel, first, and the modern scientist after him, understand under degeneracy, is not the affirmation that certain diseases, certain intoxications (*e. g.* malaria), certain customs in the parents, etc., had the power to create in the offspring a truly consecutive state thereof, an organic state, a special state, capable of being transmitted *ad infinitum* until the extinction of the race, if nothing be done to obviate this sad transmissibility. Hence, the idea of degeneration, in the modern sense, is corellary to the

idea of perfectibility, and to that idea only. It supposes, indeed, as preëstablished, one of the two following *data:* either a normal primitive type from which man has descended, or a type of perfection, which man can attain. In both cases the idea of degeneracy is always corellary to that of progress. The first of these two *data:* the existence of a normal primitive type of which the actual human species would only represent a degradation is an old idea and belongs more properly to the domain of religion, with which we have nothing to do here—not even to inquire how far the different schools of philosophy have been successful in combating the traditional affirmations. But the idea of a normal type which the human race would be able to attain, *i. e.*, the idea of a plenitude of faculties, functions, aptitude, force, health, of *life* in one word, and of longevity, man would be able to reach, *this* conception is a modern one.

It was *Condorcet* who first gave expression to this idea in the latter part of the last century, and he was, of course, universally sneered at, whilst nowadays all scientists, worthy that name, are convinced of its truth.

It has been even experimentally demonstrated, so far as such subject allows, by Serres, Flourens, Hollard, etc. But if our readers want the proof of how new this conception is in physiology, let them open at haphazard the standard works on the matter, dating fifty years back (some of them were not only then but are so still reputed classical), and let them see whether they can find one word in them merely hinting at the possibility of an anthropological progression. In the eyes of the physiologists of the old school the races are not the product of the moral and physical mediums in which they are formed, but they are fixed types, absolute and uncommunicable: or what a naturalist of the Buffon-school might call a species.

But, at the side of the works demonstrating that there really exists such a thing as a type of good, a type of the better, a normal ideal man can approach, which he can even attain, it was necessary that there should be another work

which would satisfactorily demonstrate that man could also *deviate* from that type and *how* he could deviate from it. Such work, then, would be the complement of the others, nay, their verification. Now Morel's treatise on degeneracies is the very work needed.

Before him, it is true, *Villermé's* first statistics, showing the age of the rich being just double to that of the poor, on an average, a truth, which seemed then a paradox, had already reduced to silence, or nearly so, the crowd of sensational moralists, contending and declaring the mediocrity, and even the unceasing labors of the poorer classes far more beneficial to health, than the ease and comfort wealth could procure; and that if, on the one hand, poverty was hard to bear, on the other it was rewarded for its pains, by a vigorous health, a long life and the peace of mind a good conscience always affords, etc. From that period to the appearance of Morel's treatise on degeneracies, hardly more than 30 years elapsed, but how fruitful they were in accumulating proofs and statistics, all confirming Villermé's assertions about the longer life of the rich in comparison with the poorer classes. In England, France and Germany (and by means of the census to a certain extent in the United States of Northern America too) it was certainly shown by the studious works of hygienists, by the registers of the conscription, by school reports, etc., that certain industries and manual labors, certain manners and, above all, certain miseries, diminished the forces of the people, lowered their stature and shape of the body, rendered their intelligence more obtuse, or made them altogether stupid, and last, not least, abridged their life. The causes of cretinism, idiocy, deaf-muteism, etc., were researched, various forms of intoxication were studied and the revolution in the treatment and doctrine of mental diseases, so gloriously begun by Pinel, was achieved and even the demonstration of morbid inheritances was undertaken and much advanced.

But nobody had inquired yet whether all these infirmities, either sporadic or endemic, differed from other diseases

with regard to origine, effects, and may be inheritance. Even when the question of inheritance was put on the index for scientific investigation, it was considered only as a question of minor importance, of uncertain outlines, altogether accidental and surely not going beyond the individual inheritance. It was considered merely as a simple susceptibility, without consequence to race or species. If there were already scientists who had a more definite opinion about the subject, they did not come forward with it, and therefore we are entitled to say that the question of degeneracy was hardly indicated and surely not put to the researches of the scientific world. The LOCUS, as the scholastics would say, existed, but it was yet empty. None had yet embraced in one widely embracing look what Buchez calls a *coup d'oeil d'ensemble*, the multitude of details, accumulated by analysis and statistics, none had tried to master their common relations and conclusions ; quite on the contrary, every one of the investigators remained blocked up in the specialty of his researches and found he did well in so doing. Let us add that morbid inheritance was only recognized when an analogous affection, to that which actually was diagnosticated ; was found in the ascendent.

Then Morel's treatise on degeneracy appeared. *Fiat lux !* This exclamation is not too proud a one. Some reader may object to it and call history for witness. But just history offers a great many examples of political and moral degradation of peoples and nations. These sad phenomena are signalized by so many sufferings, shame, despair and, sometimes, glorious misfortunes, that they could not, and have not escaped the notice of the historians of old. Taking due cognizance of these facts, they have, indeed, told us all about them.

But was the decadence of these peoples and nations limited to their institutions, manners and morals only, or did it reach the individual as well? Was it characterized by any physical enfeeblement of the population? Very probable, but the historians remain silent on this point. Only one or two, we believe, let fall some words by which we may

infer it was so. For instance, an early Pope A. Marcellin, (296–303), also called the apostate, and who is said to have been executed, writes that the Romans had become of so nervous a mobility that they could no more form energetic resolutions and follow them up; and an almost unknown writer, Vegecius, informs us that the Romans were unable to carry the heavy armor of their ancestors and preferred to bare their breast to their ironclad enemies. We all know with what result.

Besides, we must not forget that the historians of old were so blinded by their theoretic preoccupations that they could not see in the accompanying circumstances what we might have seen. When we reflect that antiquity had witnessed the decadence of so many cities, we must not wonder that the people of old had a philosophy of history of their own, a theory which was consolatory to them, in mourning over all those accidents then far more frequent than in later epochs. They held that peoples and nations, like individuals, have their infancy, their youth, their virility and their decrepitude. They are born, grow and die, in order to be replaced by others, who will grow and die in their turn, and so forth until the end of time. The Greek historian Polybios, and the Roman historian Florus, applied this very doctrine to Roman history, just as the Greek philosophers, preceding both these writers, had applied it to the history of the cities of Greece and Asia. We even find something analogous to that theory of old in writers whom we may call modern, compared to the historians of old. For instance, Macchiavelli. Now, we ask what conclusions give us these doctrines with regard to our question? None. Decadence is not a disease of the social body; it is one of the natural phenomena of its existence—one of its necessary evolutions. Why shall we then inquire about the individual? It suffers from it, but it is not its cause.

Now, Morel, in our opinion, followed the right path. He saw at once that it was necessary to distinguish the individuals, or rather the degenerated varieties from those va-

rieties which cannot be considered as such, *i. e.*, simple differences and even modifications, which ought to be looked upon as ameliorations or improvements. By this way, and discussing the subject in this manner, Morel comes to the difinition of his work. He defines the degeneracies: "A morbid deviation from a primitive type, a transmissibile deviation by way of generation constituting a variety." Proving separately each term of his proposition, he shows that the transmission of a degeneracy by inheritance does not consist in the rigorous reproduction of the morbid deviation which had already been observed in the ascendant, but in certain general obnoxious, modifications which remind us, in the descendants, of the original starting point, without, however, resembling it. And it is even this circumstance which distinguishes inheritance in a degeneracy from the inheritance of other diseases, such as gout, phthisis, cancer, etc. But our reader may ask, why not range phthisis, cancer, gout, etc., under the head of degeneracies, as well as mental alienation, alcoholic intoxication, malaria, etc.! The answer is easy. Precisely because all these diseases, however deadly they may be, and wrongly called *degeneracies* by pathological anatomists, do not lower the dignity of man, do not alter his moral nature.

Physicians, if they wish to elevate themselves to the rank science assigns them, must not see in their patient, as a veterinary may do with his, only the isolated and suffering animal, or a machine, the economy of which is out of order, and it becomes *their* business to restore it into working order again. They must try to accustom themselves to consider man in his principal character, his principal function, his definite destination, which is that of a moral and social being. It is the social side which strikes us most and dominates in the human species, and therefore the pathognomic sign of a degeneracy is a more or less evident inaptitude to social life, an intellectual incapacity, a moral degradation. Morel remarks very forcibly that the greater part of criminals, all those *banditi*, incendiaries, hardened felons, etc., spring up from those degene-

ated varieties, and even among the so-called better classes, the rich, we find those incorrigible debauchees and dissolute fellows, those people of bad instincts, *esprits faux*, etc., who are the scourge and the danger to society, emanating from the same source.

Morel distinguishes two sorts of degeneracy, one in which inheritance is of short duration, because from the time of impairment to that of decrease, the race ends rapidly, by the descendants becoming incapable of reproduction, and another in which inheritance appears to be of infinite duration. In this latter sort of degeneracy the deviation manifests itself by a deterioration of the race, a weakening of physical force, a greater aptitude to contract diseases, a diminished moral energy, and finally, shortness of life. Of course, this second category of degeneracies is, naturally, far more numerously represented than the first, and the more important to be taken cognizance of on account of being the more formidable as it is in no way distinguished by anyone of those perverted and dangerous instincts which charterize the former. One might, therefore, feel inclined to consider this class as natural and normal, or to use Morel's expression, "as a state of primitive institution."

As we speak to physicians we need not explain here how a morbid deviation, able to procreate a degeneracy, may kill the individual (who may be effected by it) before the same can reproduce it, or how the phenomenon of crossing in the act of generation manifests itself in the product, so that a degenerated individual does not necessarily reproduce its like. We refrain also from speaking of what Morel calls the mixed causes. In fact, we are compelled by time and space to return to the other part of our subject, and beg, therefore, to repeat our last proposition, before we spoke of Dr. Morel at all, leaving, of course, yet much unsaid about degeneracy.

We said above: the finer organization of the nerve-elements yielding only too readily, leads under unfavorable conditions to physical degeneration. To this reason those

who believe in an increase of mental disease, attribute the danger to the human brain, which in our days, *seems* to be greater and more threatening than at any time before, but which, in our opinion, is not.

In the struggle for existence the individual brain becomes more and more delicately improved in structure. This assertion we lack space and time to substantiate more fully, but we may say, here, that this struggle, as *indirect* cause, and the constant action of the brain, as *direct* cause, deepen gradually its sulci; since the brain is more or less prevented from growth in breadth and length, although it does so too, to a certain degree. Now, the advocates of increasing insanity say that the more the brain is compelled to become productive, the more it will be fatigued, irritated, overtaxed, used up [all this in direct proportion to the increased wear and tear]; and finally it will be brought within reach of morbid alteration. We suppose they come to this reasoning because this happens analogically with the ordinary nervous system: at first increased irritability, followed soon by exhaustion. As an illustration, especially adapted to the school-remembrances of our readers, Dr. Schirmer takes the complete state of feelings and state of mind a candidate generally experiences, before undergoing an important examination. Sleeplessness, absence of mind, perturbation of equanimity, and later on incapability of mental exertion, intense craving for rest, and finally complete apathy. These are indeed the usual phenomena in their order as they are generated by overstudy, and when the brain is less vigorously constituted even by a moderate overtaxation.

Such a state of things, if it occurs only once in a while, does not constitute a serious danger; but if the circle of these phenomena happens frequently, or if the brain is weak from the outset, then, say the advocates of the "increase theory," that, which otherwise might properly be considered as a merely passing perturbation leaving none or hardly any trace, might, and it is alleged generally will, sooner or later, change into one or another form of that

morbid affection, the complexity of symptoms of which we usually designate by the general terms of *nervous disorder*, or, more exactly speaking, by the special term of *mental aberration*, which, in its turn, is subject, as our readers know well, to a very numerous sub-classification.

Shall we waste time and paper to show that indeed modern life exacts the utmost tension of all our mental faculties in the ardent pursuit of almost every calling, no matter whether in the field of science or art, commerce or industry? Competition has replaced the ancient *dura necessitas*. From the first reader through all the phases of school time, including college and university-teachings, and the final examinations of higher education, the mental training of our children, has gradually and constantly increased the claims, demands and even exactions on the human brain, which were and are deemed needful and even necessary to afford an adequate counterpoise to this competition. But where do we find the counterpoise to the inordinate longing for extraordinary and excessive enjoyments we now-a-days meet everywhere? Can we deny, say the advocates of the "increasing" theory, that all this has led to the sad result of a gradual lowering and even sinking of the psychical power of resistance, amongst all classes of the population, the peasantry hardly excepted? Now, this we *do* deny, though we are willing to concede that in the same measure in which, to use a milder word, the mental relaxation increases, man endeavors to raise artificially his power of accomplishment or what the Germans understand, under the term of *Leistungsfæhigkeit*. Brain action is therefore intentionally stimulated by alcohol (under its manifold compounds of different grade and shade), and its congeners and by the use of narcotics.

We need not dwell on the utter fallacy of such proceedings, whenever they occur. You may spur an almost exhausted steed to animate it to a last and supreme effort of unnatural activity, but by so doing, you will only the more surely bring it to the ground. Now, in this respect, the higher gifted horse acts less wisely than the less intelligent

camel, for whilst the former obeys the human voice and still more whip and spurs, and exerts itself until it falls down dead, the latter withstands successfully whip and coaxing and does not rise if it judges its load too much for its strength. And man, the highest gifted being in the animal kingdom, acts more foolishly yet than the horse he controls. We feel almost inclined to side with those who define the human being "as the only animal in which natural passions are abused and unnatural appetites developed."* He knows very well how repugnant to common sense and how harmful the excessive use of all these artificially stimulating articles of food, drink and drugs are, and yet the steadfastly increasing consumption of alcohol (and its kindred liquids,) coffee, tea, tobacco, opium, (and its salts), etc., shows clearly how little attention is paid in reality to all the accepted theories and doctrines of hygiene and sound sanitary rules. This proposition holds especially good when the laws of hygiene come into actual or supposed conflict with the stern demands the struggle for existence imposes unflinchingly on those who have to fight their way through life as best they can. We, therefore, willingly agree with Dr. Schirmer and other scientists who contend that alcohol (which in the above quoted articles holds the first rank), proves to be one of the worst enemies to humanity, but we must add: only when the *use* of alcohol turns to *abuse*. One need not be an advocate of teetotalism, or an apostle of temperance, in the modern sense of the word (and we are neither), or to join those professional brethren who object to alcohol even in the form of a pharmaceutical compound (and we recollect the time when in England, they were almost a body), to acknowledge the truth of the above assertion.

More than ten years ago, at the third international medical congress, held at Vienna, Austria, in the month of September, 1873, the writer, then one of the presidents of the section of Psychiatry and Forensic Medicine of said Con-

* Vide Dr. Henry Leffman's "*The Duty of the Hour.*" Being an examination of the relation of the medical profession to the general use of alcoholic liquors. Paper read before the Philadelphia County Medical Society, September 26, 1883.

gress, brought the question: "Alcoholism and its influences with regard to mental disease, with special reference to Russia, Great Britain and the United States of America," under the notice of his colleagues. But, as in that year, the question was put too late to have a place in the programme, and had, besides, to be previously investigated by the profession at large, especially by the eminent specialists then assembled at Vienna, it was resolved to keep it on the programme for discussion at the next session of the International Medical Congress, to be held at Brussels (Belgium), in 1875.

We regret to say that we were unable to attend that very next congress, and we still more regret to avow, that we lack information as to the result, (having the Brussels congressional transactions not at hand); but we do not doubt that the subject has received due attention from the competent body before which it was brought. Prof. Meynert, of Vienna, for instance, whose name was already mentioned above and who was also a member, and another Day-president of the section of Psychiatry and Forensic Medicine of the Vienna Congress, then strongly advocated the desirability of investigating scientifically and statistically the question on alcoholism, as brought before the section by the writer, *i. e.*, in relation to insanity. But he, too, had some misgivings, whether this investigation, however largely made, would show any noteworthy increase of mental disease from alcoholism alone, the acute form of delirium tremens excepted. And as to the fact of weakening the intellect by immoderate use of alcohol under whatever denomination, this fact being indubitable and undoubted by the profession already, there was no need of investigation at all,

We have mentioned Theodor Meynert's name, among so many others, because his opinion is well worth recording. He was the first who submitted, on a larger scale, with due regard to comparative anatomy, the cortical substance of the brain to a careful histological examination, and continued so with special regard to the human brain,

when he was called to fill the important position of Clinical Professor of Psychiatry at the Vienna University and Physician of the Psychiatric Clinic.*

Having now a larger field of action and a numerous material to work upon, Meynert's investigations became highly instructive and useful to the profession. He paid particular attention to the morphological changes in the cells of the cortical substance of the brain at the different stages of mental disease which had ended fatally; and, as the cases had been thoroughly investigated during life, the pathological changes in the brain could the more easily be ascertained, comparatively, as to the more or less advanced, but well known degree, of the disease itself, and the changes in the structure of the brain, peculiar to the different forms of mental alienation. Broca's work on the localization of the faculty of articulate language† would probably never have been written without the pioneer labors of Dr. Meynert, of Vienna: just as the able book on aphasia‡ of a physician to the Norfolk and Norwich Hospital, in England, Dr. F. Bateman, would, likewise, never have made its appearance without Broca's previous researches.

Let us briefly mention that Broca considers himself justified in asserting that the integrity of the third frontal convolution (and perhaps of the second) appears indispensable to the exercises of the faculty of articulate language.

When Broca came out with this assertion,§ some 16 or 18 years ago, aphasia, or loss of speech, was yet one of the most obscure questions in cerebral pathology and a true *questio vexata* besides. It is so no longer. Meynert's researches in connection with the numerous traumatic lesions of the anterior lobes through fire-arms during the Franco-

* This clinic is situated at the Imperial Lunatic Asylum (*Nieder-Oesterreichische Landes-Irren-Heil und Pflegeanstalt*) in the *Lazarethgasse*, not far from the "*Allgemeine Krankenhaus*" (General Hospital), in the *Alservorstadt*, so well known to those of our readers who have professionally visited the Austrian metropolis. The Vienna Lunatic Asylum (of which, since its completion, Meynert's Clinic forms a part, having been transferred there from the *Allgemeine Krankenhaus*) counts no less than five hundred beds, generally all occupied, and is under the medical superintendence of Prof. Schlager, who, however, has not the right to interfere with Meynert's Clinic.

† *Broca:* "Sur le siége de la faculté du language articulé."

‡ "On Aphasia or Loss of Speech," by Frederic Bateman. *London:* John Churchill & Sons. 1870.

§ *Broca*, work quoted page 38.

Prussian war have contributed no little to settle the question, as our readers doubtless know.

But let us return to our subject. We accused alcohol of being the worst enemy to humanity, among the above quoted stimulants resorted to, and we add now that alcohol proves to be so, not in as much of the quantity swallowed, as of the concentrated form in which it is taken (changing it from *food* into *stimulant*) and which is calculated, in the minds of those who use it, to give the exhausted organism the desired power of tension, but which, in reality, is thoroughly undermining the moral and physical strength of the imbiber.

Can we wonder then, that alcohol contributes powerfully to make our present society so little robust and so highly nervous? Or as Schirmer forcibly expresses himself in the article mentioned: "Alcohol produces a class of people, who have too much nerves and too little nerve."

Let us hope to see the alcohol question, and its deleterious influence upon the nervous system, taken up soon again (and this time by the scientists of all nations) and thoroughly investigated and sifted from so many errors yet prevailing. Let it be investigated above all in the direction of physiological experiment, *à la Danillo*. Stanislas Danillo, who, as many of our readers may know, recently investigated the question, why absinth-alcohol or essence of absinth, we mean the well known Spirit. Absinth., so much *en vogue* in France and elsewhere, under the simple denomination of "absinthe," like "maraschino" or "chartreuse," etc., was more manifestly shown to be dangerous than other alcoholic stimulants, such as brandy, etc. Danillo, whose experiments were confirmed by control-experiments made by Dr. Oorsteiner in Vienna, Austria, found, that whilst pure alcohol of 40 per centum strength subcutaneously injected in the blood circulation of dogs, in the ratio of four to six grammes (one drachm to 1½ drachms of our medicinal weight) per kilogramme [1000 grammes] of the dog's body weight, produces a deep drunken-sleep in which the animal remains insensible to electric irritation of the

cortical substance of its brain, just as if it was in a state of chloroform-narcosis; similar injections with the essence of absinthe brought on quite other and far more alarming symptoms. One hundreth of a gramme of said essence to one kilogramme of body weight, injected in the veins of a dog, was sufficient to cause violent epileptic spasms. Repeated injections of very small doses increased these spasms so much as to give the animal the appearance of being poisoned by strychnia. Larger doses injected bring about still more astonishing phenomena. The dog begins to bark, points its ears, looks astonished into the air, snaps right and left, scratches the soil, and behaves as if it sees something threatening, or at least disquieting, against which it has to be on its guard and to which it must offer resistance. There can be no doubt that the so-poisoned dogs are suffering from hallucinations, and very likely are troubled with the same visions as drunkards in the state of *delirium tremens*. A dose of $\frac{1}{10}$ of a gramme to one kilogramme of the body-weight of absinth-essence subcutaneously injected proves generally fatal in dogs.

How far the *humor irrascibilis* of the French soldier, and especially of the officers, who have served in Algeria, is due to the fatal habit of the daily use of absinth-essence as an apetizer, is a question we shall certainly not consider here, but investigations, even vivisections, or the so-called *experimenta in anima vili*, seem, on account of their high, social and moral importance to mankind (with regard to the manifestly increasing alcoholism among so large a percentage of our male population of nearly all classes), perfectly admissible, not only from the scientific standpoint but the ethical, too.

Before we conclude, for our article has already taken greater proportions than we anticipated, we must protest against Dr. Schirmer's final assertion (and he is only the mouthpiece of general opinion), that over-exertion and over-irritation through the means of nerve stimulants (alcohol, tea, coffee, etc.), are the two factors "which by far over-compensate, all that culture has achieved in the

way of prevention of mental disease." This is not so, and since we are generally wont to look for authorities, let us quote another eminent French alienist, Dr. Parchappe, who, as long as 30 years ago, at the foundation of the Parisian Medico-Psychological Society (1852), inaugurated by the discussion of the important problem of the relation between lunacy and civilization, calling forth at the time the views and opinions of experts, like Brierre de Boismont, Moreau (of Tours), Alfred Maury, Gerdy, Ferrus, Cerise, etc., expressed himself to the effect that he admitted with everybody that the number of lunatics taken properly care of was evidently larger than in former times, and that in France, from 1835 to 1851, the number has been constantly on the increase. But, admitting, the number of lunatics so assisted had doubled,what conclusions are we to draw from these facts? Parchappe says rightly, "This augmentation in the number of assisted lunatics, is surely the result of civilization, but a glorious result and a consolatory fact for it bears witness, it proves that public assistance and sanitary help has become more developed and perfected."

The progress of civilization (and this is an observation of Dr. Parchappe) has a complex influence on the number of lunatics, who are diminished or increased according to the antagonistic elements which it may bring to bear upon them. But there is a long way to travel yet before we can conclude from this that the number of lunatics is in direct increase with the progress of civilization. In the eyes of Parchappe (as well as almost all modern alienists, and certainly all alienists of note, and let us hope the majority of our readers, too,)civilization constitutes a progress. Now to suppose, he says, that social progress has reached its terminus, or is nearing it, is to suppose, at the same time, that instruction, comfort and morality (increased in bulk in society) have, besides, uniformly spread throughout all classes. But then you have to admit as necessary consequences of such an amelioration in the state of society:

1. That the defects of organization, transmitted by

each generation to the following one, will be fewer, and the number of idiots will diminish in consequence.

2. That the sensual excesses, the vicious habits, and especially drunkenness, will have a tendency to disappear, and that the number of lunatics, especially of paralytic lunatics, will be fewer.

3. That in the large category of family interests, the powerful causes designated under the generic name of family troubles (*chagrins domestiques*), will lose in intensity all that the family itself will have gained in morality.

4. That in the category of the financial interests (*intérêts de fortune*) the element "misery," suffering for want of money, will lose its power in ratio to the augmentation of comfort and wealth.

After entering into the true element of the question, with regard to hygiene and prophylaxy, and recalling to mind the great antagonistic elements, and those of preservation, a society, truly civilized, has in its disposition to combat the causes which attack the physical, intellectual and moral health of man, Parchappe adds:

"We may fairly admit that this influence of the progress of civilization on the most active causes of mental disease should be sufficent to counterbalance, at least, the augmentation of cerebral activity, especially in considering how feeble, indeed, is represented the cause of the *excesses* of intellectual work."

These last words of a man, who, during a long and fruitful career as an expert in mental diseases, and a Government Inspector General of nearly half the lunatic asylums in France, can well afford to speak as he does, we recommend to the earnest consideration of the advocates of the increase theory. Let us quote, too, the opinion of Flourens:* "Mental disease has been studied latest, because it is one of those disorders the most difficult to study." This is true and it accounts mainly, why we hear nowadays so much of the increase of insanity; since we really know something of mental disease we are able

* Flourens' *Examen de la Phrénologie.*

to diagnosticate it, where in former time, people waited until a person was a raving maniac before they declared him insane, and treated him afterwards like a wild beast in a menagerie, putting him into iron-bound cells, chained to the wall, and leaving him *à la grace de Dieu*. Let us not forget that the St. Luke Hospital, in London, founded only in 1751, was the very first lunatic asylum in the modern sense of the word, and that Germany followed in this humane effort, with regard to the insane, by erecting the lunatic asylum at Waldheim, Saxony, in 1787. Besides, the prolongation of the lives of lunatics by improved modes of treatment, certainly increases their actual number.

But the strongest arguments against the increase theory our readers may find in a pamphlet of Dr. Morel,* which treats this very question on the influence of civilization on the development of mental disease, and answers the question whether there are now (then) more lunatics than formerly, of course in the negative.

Time and space prevents us from giving our readers even a short analysis of this able work, but we can not refrain from quoting some statistical numbers from it, because there are a good many readers, we are sure, who would consider our article incomplete without such figures. Here they are: page 13, Morel says:

"The most recent statistics are those of Doctor Maria Rubio, published in 1848 (since then 36 years have elapsed, but the proportion, correction made with regard to the increase of population, seems not to have much altered as far as our knowledge goes.

According to Rubio, there are to be found lunatics in:

Scotland	1 in	417	inhabitants.
Canton Geneva, Switzerland	1 "	446	"
Norway	1 "	550	"
Belgium	1 "	816	"
England	1 "	700	"
Prussia	1 "	1000	"

* Y a-t-il plus d'aliénés aujour d'hui qu' autre fois? ou de l'influence de la civilization sur le développement de la Folie, par M. le Dr. Morel, *Rouen*. Imprimérie de Alfred Péron, 1857. 12mo.

Holland	1	in 1223	inhabitants.
Spain	1	" 1667	"
France	1	" 1733	"
Ireland	1	" 2125	"
Italy	1	" 3698	"
All the possessions of Piedmont,	1	" 5818	"

And the proportion, perhaps, is still more favorable to Russia.

We quote these figures as we find them, though we have some misgivings as to their exactitude in some respects. It remains, for instance, unexplained why there should be so small a contingent in Piedmont and so large a one in Scotland, even admitting that in the former country those degenerated beings called *cretins*, who populate in so large a number the province of *Maurienne*, Savoy, the valley of *Aosta* and the mountainous regions of the Alps, and owe their infirmity to the geological condition of the soil, have not been counted among true lunatics. In France (Morel says so,) the same anomaly exists in different departments, and judging from the lunatics in the asylums of Saint-Yon and Quatre-Mare the proportion in the département of the *Seine Inferieure*, which of course, Morel knows best, would amount to 1 in 650 or 700. He puts the average number throughout France to 1 in 1000, like Prussia. Morel, too, is decidedly an adversary of the increase theory, and so are Esquirol, Falret, Mare, Georget, and, as we said above, nearly all modern alienists of note, who likewise have freed themselves long ago from the erroneous doctrine of monomania as being one of the forms of mental disease. In the actual state of science the theory of instinctive monomania is not admissible,* but it would be out of place to enter into a discussion on this point. We likewise must refrain, on account of want of space and time, from saying something about the so-called suicidal-mania. It would be easy for us to show, history in hand, that suicides, nowadays, with regard to their number, represent

* *Vide:* De la Non-existence de la Monomanie, par le Dr. Falret, Médecin de la Salpêtrière. Extrait des Archives Générales de Médecin, numéro d'aout 1854. *Paris.* Rignoux, Imprimeur de la Faculté de Médecine. 1854. 12mo.

but a very small percentage, indeed, when compared with those of antiquity and the middle ages. For instance, in the latter part of Imperial Rome, during the so-called *Bas-empire*, and in Greece, about the same time.

The pessimistic owl-cry of the "increase"-advocates accusing culture and civilization with filling the lunatic asylums, will fade away and become a thing of the past, as the theory of instinctive monomania has become a thing of the past for rational alienists. But there will remain a fundamental truth which we believe irrefutable, and which everybody should take at heart, viz: that human reason, taken as a whole, *i. e.*, in its widest sense, is most solidly established where all the great principles of man's physical and moral perfection, having truth and sentiment for a basis, beam in the most absolute and most fruitful sense of their civilizing action. These principles imply that civilization, which is but culture in a wider sense, becomes perfect only—*conditio sine qua non*—when based upon morality and progress.

Culture and civilization can never become an illustration of the paradoxical maxim:

Summum jus—summa injuria.

The Effect of the Inundations of the Mississippi River Upon Health.

By R. H. Day, M. D., Baton Rouge, La.

Within the past two years this subject has been brought very prominently before the medical profession by the enquiries, researches and writings of Prof. Chaillé, of New Orleans. Certainly no one single subject pertaining to medicine could be of more importance to the profession, and to the inhabitants of the Mississippi Valley than this: but its chief and paramount interest centers in the consideration of the best measures by which their evil influences upon health may be averted, rather than an inquiry into the question, whether these inundations are prejudicial to health or not.

This question, in principle at least, has long since been settled beyond all controversy. From the time of Hippocrates to the present day, wet and marshy soils, and inundated lands, whether from salt or fresh water, when subjected to the drying process, under a high temperature, are recognized both by the profession and the laity as fruitful sources of much sickness. Says Aitken: "Geographical facts collected by medical writers, from Hippocrates downward, show that every country is unhealthy in proportion to the quantity of marsh, or of undrained soil it contains. The connection of a given class of disease, represented by remittent and intermittent fevers, with marshy districts, is now distinctly recognized."

If any one question in medicine is settled by medical observation and experience, it is that wet and undrained soils, under the influence of high solar heat, are prejudicial to health. And it is upon this recognized and well settled fact that enlightened sanitarians everywhere recommend and urge a thorough system of drainage, to counteract the insanitation of such soils under such conditions. Now, while I cannot for one moment suppose that Prof. Chaillé would controvert this general fact, yet it does seem, at least so far as relates to the influences of the Mississippi river inundations in the production of sickness, that his inferences or conclusions are intended or calculated to disparage medical and public opinion upon this subject, and to bring discredit upon one of the best established facts within the range of medical experience.

To elicit the fact, a series of enquiries were addressed to a number of physicians residing in localities subject to overflow, and their answers thereto solicited. A few only, out of the many addressed, we are informed, responded; but, I charitably suppose, not from any indifference in regard to this important subject, but for the simple reason that it was utterly impossible to answer the questions proposed, in the manner required by the interrogatories themselves. The few that answered did so upon their general observations and experience; and in the main, taking the

nature of the subject and the character of the questions into consideration, their answers were singularly harmonious and corroborative of the general fact, and not really contradictory, as made to appear. It is true, that a seeming antagonism is presented between the statements of Dr. Scruggs and mine, representing, as Dr. Chaillé says, "the two extremes of opinion, one asserting that overflows were always injurious to health, and the other that they never were."

Now this difference of opinion might be explained upon the ground that Dr. Scruggs and myself, having lived out our "three-score years and ten," and being, perhaps, the two oldest practising physicians in the State, had arrived at the period of life representing its second-childhood. Be this as it may, the difference, I think, is quite explicable upon higher and more scientific grounds.

No medical man contends, or ever has, that simply high water covering any body or description of lands, is prejudicial to health, or calculated to engender what is known as malarious diseases: it is only when the waters subside, when the marshy, wet, or inundated soil becomes exposed to the scorching rays of a tropical or semi-tropical sun, that the toxic agent or agents are evolved, and human health and life thereby jeopardized. If these overflowed soils are naturally or artificially well drained and become quickly dried out, or there are heavy showers of rain during the period of the subsidence of the waters, the deposits and filth with the liberated miasmata are washed off, and the surroundings, otherwise being favorable, the public health is not materially affected.

In consonance with this general and well established fact, in answer to Dr. Chaillé's questions, I thus replied: "General experience and close observation justify me in saying most positively, that an increase of sickness is invariably the result of overflows, both in the districts inundated and in their adjacent neighborhoods. This result may be *greatly modified* by the falling of heavy rains during the subsidence of the flood; that is, if frequent

showers of rain occur during such time, the deposits are washed off the lands into the streams, and less sickness is the result. If, on the contrary, but little or no rain falls, the accumulated deposits remain to undergo decomposition, and much and graver sickness ensues, if not as a result, as an accompaniment. The character of this sickness succeeding overflows is clearly what we designate as of malarious origin—malignant intermittents, remittents, dysentery, and hæmaturial diseases, being dominant and asthenic in type. This was observed on several occasions, while I was residing in the Attakapas country, a large portion of which, indeed all on the east side of Bayou Teche and the Atchafalaya river, consists of low lands subject to frequent overflows. Since I have been living in Baton Rouge, the same has been observed in reference to the low lands of West Baton Rouge and of the Gross Tête country. So, though I cannot be precise as to dates, I can be in reference to the general results of overflows upon the health of the inhabitants.

Now, while my observations in regard to the effects of overflows upon the public health, have embraced an area of country with very imperfect natural drainage, and no effort at artificial drainage whatever, my experience has been that of every other medical man under similar conditions, with any practical observation at all, that inundations of the Mississippi river are always injurious to health, unless counteracted by opposing favorable circumstances.

While I know nothing personally of the topography of the country, nor the character of the soil, lying within the scope of Dr. Scruggs' immediate observations, nor the conditions of the drainage, neither the time nor the circumstances, meteorological and otherwise, attending the recession of the waters, I may venture to say, were these all well known it is altogether possible, yea, and very probable, that Dr. Scruggs' testimony and mine might be harmonized on strictly scientific grounds, instead of standing, as now, at the "two extremes of medical opinion" on this subject. At any rate, before our opinions can be ration-

ally said to oppose each other, it is absolutely essential to establish the fact that our observations embraced exactly the same character of soil, conditions of drainage, and the same meteorological state of the atmosphere during the subsidence of the floods; in fine, whether every condition in the two different localittes perfectly coincided.

But, that marshy, wet, overflowed, undrained lands, evaporating under high solar heat, in all countries, and in every age of the world, from the first dawn of medicine down to the present hour, from the tropics to the temperate zone, are injurious to health, is confirmed by the universal experience and concurrent testimony of the medical profession, as well as the settled belief of civilized man. That the Mississippi Valley and adjacent low land, subject to overflow, should be an exception to this universal fact, would indeed be a strange anomaly. But they do not differ nor form an exception to this general experience, when medical testimony is properly taken and correctly interpreted.

I am aware that a few medical men in Louisiana have claimed for our low lands, subject to overflow, a peculiar exemption from malarious diseases. Among them the late Dr. Sam. A. Cartwright, who wrote extensively upon this subject, attributed this supposed exemption to the prophylactic properties of a certain aquatic plant (the Jussieuæ Grandiflora that grows abundantly in the bayous and lakes of Louisiana), which he clothed in imagination with the extraordinary property of absorbing, or neutralizing in some way the immense quantities of malarial poison, of necessity generated or evolved by our extensive alluvial lands. But the severe experience of medical men in these alluvial districts has completely refuted all such office speculations.

That New Orleans does not suffer in health from inundations to the same extent as do the rural districts, may be true. Certainly it is not unreasonable, can be explained, and accords with medical experience as to other large cities. The more perfect drainage of large cities, their

better constructed dwellings, their paved streets, and their numerous furnaces and fires, all tend to prevent the evolution of malaria, or serve to dissipate it if evolved. I use the term malaria in its common acceptation, as designating the topic agent that produces, or is supposed to produce, a distinct class of diseases, known as (the old terms) bilious remittent and intermittent fevers, bilious dysentery, hæmaturia, jaundice, etc., whether it be a gaseous invisible emanation from the soil, or the more probable one of germs, developing from the putrefactive, chemical or septic changes going on in the organic substances in the soil, under the potent influence of solar heat.

Dr. Chaillé certainly deserves the gratitude of the profession for his able services in the promotion of medical science in this State, and for his zealous and painstaking efforts to build up a solid and reliable system of vital statistics, as a basis of enduring medical progress. I fully appreciate their importance, and cheerfully accord to Prof. Chaillé the first honors for his zeal and deep interest in all that pertains to the advancement and elevation of medical science in our State. But vital statistics, to be valuable, must be *precise*, *definite* and *accurate*. To possess these properties requires in the observers a high degree of intelligence, patient and discriminating observation, with sufficient time for careful recordation of facts, with their environments. That as yet we have not had these concomitants is very manifest, not even in New Orleans, and hence the incompleteness and the unreliability of the statistics at our command. We are thus driven to depend, in a large measure, upon the experiences of intelligent and close-observing physicians for many facts relating to the practice and science of medicine; and we cannot but think that Dr. Chaillé, very unintentionally no doubt, does his respondents an injustice in using the following language in his communication in the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL of July, 1882: "Research soon proved that this subject has thus far received very little careful study, that trustworthy records are meagre and unsatisfac-

tory, and that, as a necessary result, there can be found those who, *trusting to treacherous memories*, *vague impressions* and *very carelessly observed facts*, entertain views entirely opposed to each other."

The object of all scientific research is truth, in medicine as well as in natural philosophy and the physical sciences; and as carefully observed and oft repeated fact or occurrence, in either field of observation, becomes the legitimate basis of thought as reliable and trustworthy as if made a matter of record at the time of happening. Facts are facts, and truths are truths, *valuable* and *trustworthy*, not because of *recordation* only, but by reason of their *absolute actuality*. And it cannot be otherwise, because facts and truths are not self-recorded. They require some one to record them, and their claims to trustworthiness depends upon the capacity and fidelity of the observer and recorder.

In reference to the influence of inundations of the Mississippi river upon the health of the people of New Orleans and of the Mississippi Valley, the "*memories*" of the medical observers are not "*treacherous*," their "*impressions*" are not "*vague*," nor their "*facts carelessly observed*." On the contrary, these practitioners are the practical and careful observers, and the laborious workers in our profession, and their memories and their impressions are vividly and indelibly stamped with the occurrences and facts, as they transpired under their daily and personal observations; hence they are *trustworthy*.

It is to be regretted indeed that definite and detailed vital statistics are not kept by the profession generally, as it would add much to the preciseness and certainty of medical history and the arrangement of scientific facts. But in Louisiana these vital statistics are not kept, never have been, not even in New Orleans, except as to the aggregate of deaths, and imperfectly as to the diseases ending in death; and, in the absence of reliable statistics, we are necessarily obliged to accept the testimony of intelligent and impartial observers in our profession. Indeed, on just such testimony alone Prof. Chaillé's interesting articles in

regard to the effects of inundations upon the public health are based. And it is a rather surprising thing that while he is disposed to throw discredit upon the statements of his correspondents, from lack of statistics, he should, nevertheless, presume to fortify his opinions with a newspaper statement made 38 years subsequent to the inundation. See his pamphlet, page 3, where a "newspaper in 1882" is quoted as saying, "Many persons, living now, remember the high water of 1844. It was one of the healthiest years in the history of the South. No yellow fever (epidemic) that year."

Statistics, as kept, may do very well for mere logic, office writing, and the display of erudition; but there are too many well known sources of fallacy and inaccuracy attached to the best kept statistical records to justify us in casting doubt or discredit upon universally accepted facts in medical experience, because lacking in statistical proof.

But, that inundations, even in reference to the sanitary condition of New Orleans, are not so harmless as Dr. Chaillé's inferences would lead us to believe, it is only necessary to cite the statement of one authority, whose competency, Dr. Chaillé, himself, vouches for.

(See NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, July, 1882, page 21.) "Dr. Deveron, of New Orleans, *well known for his sanitary experience and knowledge*" (whom I also delight to acknowledge as competent authority), at the meeting of the *American Public Health Association*, in Detroit, last August, uttered the following strong and clear-meaning language: "That when the swamps near that city (New Orleans) were full of water, there was no malaria, *while fever broke out as soon as the swamps began to dry out*. He had also noticed that the rice fields were healthy regions, so long as they were covered with water, but when it was drawn off, either to seed or to cut the crop, sickness was abundant. His conclusion was, that the drying of the swamp waters liberated malarial germs. The *New Orleans swamps were drying out now, and on the day he left the city sixty cases of malarial*

fever were admitted to the Charity Hospital, the largest number ever known in one day.

It would be as unprofitable to medical science, as it is unnessary in the development of the true facts relating to this subject, to take up and analyze, *seriatim*, the testimony and correspondence given by Dr. Chaillé in his several articles. That there is a seeming conflict and vagueness in a few cases is readily conceded; but, perhaps, it was unavoidable from the character of the questions propounded, and the diverse character of the soil and the topography of the country, in which the several correspondents had made their observations. As these conditions differed, so did their observations differ, as also their statements, yet, not involving a contradiction.

For whoever is acquainted with the physical character of the basin of the Mississippi river and its tributaries, knows that the whole area is largely interspersed with shallow lakes and ponds and basins, that only become filled with water during the overflows of the river, but as well when the winters and springs are excessively rainy, which very frequently happens: and whenever these basins, ponds and shallow lakes are filled with water, whether by inundations or by excessive rains, and the succeeding summer and autumn are dry and the heat extreme, much sickness, malarial in character, always ensues, except in certain limited localities, where natural or artificial drainage rapidly dries out the soil. Hence, it may, and does often happen, throughout this extensive valley, that we have quite as numerous and as malignant fevers and other malarial diseases in years not preceded as in those preceded by overflows. But in either case, resulting from identically the same cause, malarial emanations from previously submerged soils under the process of drying out from the elevated temperature of the scorching rays of an autumnal sun.

To conclude, were the topography, the peculiar physical features of the alluvial land of the Mississippi valley well known and fully comprehended in regard to the differences

in the character of the soil, the rapid or obstructed drainings, with the amount of exposure to sunlight and to free and sweeping currents of air, as so many factors in this problem of ætiology and hygiene, it strikes me this subject would be divested of mystery and uncertainty, and we should encounter but little difficulty in harmonizing the experiences and statements of practitioners of medicine in this extensive and varied field of observation.

TRANSLATIONS.

ON CREMATION.

(Published in the Pharmaceutische Centralhalle, Berlin, December 20, 1883.)

Translated by C. L. KEPPLER, for the N. O. MEDICAL AND SURGICAL JOURNAL.

In Europe, at least in the western portion, in the beginning of the current millenary, the custom of cremation generally disappeared. The first instance, after a lapse of several hundred years, that bore the character of cremation, was the one of the deceased wife of a nobleman, Von Koditz, of Oldenburg. This beginning is attributed to his exalted ideality, which was shared by a number of others. Ten years later a measure was introduced by Kagnenot, of Montpellier, into parliament against the interment of bodies in churches, and afterwards it was prohibited by law, in France, not only to bury bodies under churches, but also in the interior portions of cities. Cremation was again earnestly suggested on practical grounds, although this idea found little favor; for this reason it is supposed that, within the next 30 years, in France, London and America, only four cremations took place. At the time of the French revolution cremation was again earnestly advocated, and a proposition introduced by the central administration of the Seine department for compulsory cremation, which found favor with the authorities. The Institute of France offered a prize of 1500 francs for a scientific exposition of this subject, in consequence of which not less that 40 essays were received, all

advocating compulsory cremation. In the meantime, the consulate of Bonaparte was installed, and the newly introduced government of the Seine department rejected the project, but in a very unwelcome manner the people of Paris were made to remember the subject of cremation, for the Germans, in the year 1814, twelve days after the battle near Paris, in Montfaucon, burned the carcasses of 4000 horses. The work, executed with the aid of iron bars laid after the manner of a grate on stones, required fourteen days. Not as might be supposed in the above mentioned cases, "but the complaint of a gravedigger, that he was obstructed in his work by the entrance of water from the soil," was the somewhat peculiar reason why, in the year 1829, Dingler, in his journal, strongly advocated cremation as a means of avoiding the drainage of cemeteries. Certainly his proposition met no favor, and the old custom of burial prevailed, for up to the year 1855 only two more cremations took place—the one of a murderer in Madrid, and the other of 13 officers and 100 men, of the United States filibusters, killed by Rivas in Nicaragua. Although there appeared in succeeding years several articles on cremation, the movement met with opposition from what occurred in the year 1866. The Italian and German battlefields led Coletti to recommend warmly the cremation of the dead, and the idea was received with favor. At the International Medical Congress, held in Florence in the year 1869, the assembly expressed the following sentiment: "In the interest of public sanitation, everything should be done in the legal way for the adoption of cremation, in place of the present system of interments." The question was again discussed, on account of the cremation of a great number of human bodies and dead animals on the battlefield at Sedan, and also from Brunetti having used the opportunity to bring to the world's view his apparatus for cremation at the Vienna Exhibition. In Italy the movement in favor of cremation has progressed, and human bodies have been burned even without the occurrence of exceptional conditions, as at Sedan. From 1876 to the middle of 1882, 219 human bodies were burned.

Next to Italy, it was not in excitable France, where the enthusiasm for cremation was the greatest, but in Germany, where this movement was especially favored, and soon caused the erection of an apparatus for that purpose in Dresden; but it was not until the year 1872 that a cremation actually took place, that of an Englishwoman. Afterwards,

a crematory was built in Gotha, where the first cremation occurred December 10th, 1878. But it seems that, after having reached this extent, interest in the movement died out. So it came, that in Gotha, until the end of June, 1883, in 4½ years only 127 corpses were burned, a result which failed to answer the efforts made by a few individuals and associations formed for that purpose. It may be said that the active movement, begun in Germany, at the present time has come almost entirely to a stand-still; the question whether it is to be regretted or not, we shall examine on hygienic grounds.

It is said that cemeteries always fill the atmosphere with infectious emanations, and poison springs or wells; but in looking over the literature of the subject we fail to find sufficient ground for the above asserted charge. That in digging the ground in cemeteries during the past century, and some 10 years ago in France, epidemics were the consequence; that about 50 years ago in Wurttenberg, in a school-house, which happened to be erected on one of those abandoned churchyards, teachers and scholars, in heated rooms, were taken with a headache; that owing probably to an overfilled cemetery in Paris, during sultry weather in the evening, disagreeable odors were noticeable,—what is there in this to forbid the laying out and management of cemeteries in a rational and proper manner at present? To allege that cemeteries of the last mentioned sort carry with them inevitable disadvantages, demands proof. In France there are 35,000 cemeteries: in Germany there are at least as many, considering the 80,039 communities existing there. If we ask for evidence of the asserted danger, we find it altogether wanting. The frequent assertion, that cemeteries poison wells or springs, is not admissible. The analyses made by Reinhard, president of the Medical College of Saxony, show as follows:

"A pollution of the springs or wells from the cemeteries with very few exceptions does not take place. As a general rule the water derived from the springs of cemeteries is purer than that in inhabitated places."

One of the strongest proofs was given by the celebrated Pettenkofer, professor of hygiene at Munich. The dung-hills, vaults, etc., attached to buildings, pollute the surrounding soil more than cadavers of a burying-ground, which have six or more years time, and proportionally a larger space for decay in their resting places, than the organic refuse of a human household in densely inhabited

localities of the city." Dr. Lion says: "By the process of cremation, infection of the soil, the atmosphere and drinking water, will be prevented; but by a well selected ground, by well arranged burials, this cannot take place. This fear dates from the time when graves were reopened and used for the reception of other corpses, before the process of decay was finished. The first are prohibited, and for the last, a term of 30 years imprisonment was legally ordered, therefore dangers are in reality not present." Besides, the argument that cremation precludes danger from burying-grounds is strengthened by the fact, that the same prevents from being buried alive. Indeed! but it prevents from being burned alive; and here Raginsky, an eager advocate for cremation, says, himself, he does not know which is more agreeable, to be buried alive or burned alive.

Even when the most noticeable hygienic arguments could not convince us of the necessity or utility of cremation, there are especially two considerations raised against the proposed innovation of the greatest importance; while in almost all writings which favor cremation the assertion is made, that the products by natural decay of corpses in the earth are precisely the same as destroying them by fire, while burning hastens the natural process, several chemists have shown that the amount of heat which the furnaces necessarily evolve prevents the escape of the nitrogenous parts of bodies in the form of ammonia, as by natural decay; but that the ammonia experiences further decomposition into the nitrogen and hydrogen. As plants can assimilate nitrogen only in the form of ammonia or nitrates, so, in case cremation were a general custom, the nutritious material of the vegetable kingdom would experience a diminution. If we estimate the population on the globe to be thirteen hundred millions, then in each century, by a moderate calculation, four thousand millions deaths occur. When all the therein existing nitrogen returns in a useless condition for vegetation, then the deficit becomes perceptible. As the population constantly increases, everything must be avoided which could reduce the nutritive materials. Cremation is a profane encroachment into the domicil of nature, whose scope we are unable to discern. The second serious consideration which may bear against cremation is its criminal aspect. As history in criminal cases teaches, it has been oftentimes possible, by exhumation and careful examination of corpses of individuals, in whose

death none thought of murder, to confirm the real cause of death. This possibility disappears almost entirely with cremation. Those who favor the latter certainly claim that it seems possible, by a very carefully held inquest, to detect every criminal act committed on the lives of the deceased, but with what enormous sacrifice of time and money would this be connected.

There is a natural feeling of revolt at the idea that every body after its death must undergo examination, to decide whether or not death was due to suffocation, poisoning, or other foul measure. Then should be defined the task of the inspector of the dead. It has been insisted that it is possible in the consideration of criminal cases, to detect inorganic substances in the ashes; but the ashes, at least in Gotha, are delivered into the hands of relatives, or others interested in the deceased We, therefore, come to the conclusion that cremation is an unnecessary, an unnatural, and in a double point of view, a dangerous measure: unnecessary, because the present mode of burial offers no danger by observing strictly the rules prescribed; unnatural, because the last products by cremation of corpses are, from a main point, different from those by natural decay; dangerous, because the quick and perfect destruction of bodies by fire gives encouragement to crime, inasmuch as it will generally be impossible from a later suspicion to bring proof, in the analysis of the remaining ashes, of a suspected murder.

Abridged Translations from the *Deutsche Medizinal Zeitung.*

By A. McShane, M. D., New Orleans.

Reflex Paraplegia.—By Thomas Oliver. The author basing himself on two cases, declares in favor of the purely reflex nature of renal paraplegia and allied conditions. In the first case, a man of 46 years, a sudden and severe pain was felt in the back, so that he was obliged to go to his home. On the way the legs commenced to refuse their service, and five minutes later they were completely paralyzed. At the same time dysury appeared, with occasional splitting of the stream; purulent, acid urine: and painfulness of the right lumbar region. An examination of the bladder gave no result. Pyelitis or renal calculus was diagnosed; the latter was afterwards shown by acupuncture to be the correct

diagnosis. After some time, the patient passed large quantities of urine without difficulty, and the paraplegia correspondingly improved until complete cure. The treatment consisted only in the administration of opium, hyoscyamus, etc., to relieve pains. The second case was a woman, presumably not hysterical in whom a recent complete paraplegia disappeared after reposition of a retroflected uterus.

Resorcin.—Le Blond and Fissiâux recommend resorcin for chancroids in woman. It acts more quickly than iodoform, and has not such a disagreeable odor: it may be used either in powder or in 25 per cent. solution. Poisonous effects have never been observed.

For the removal of nævi in patients who shrink from the knife, Dr. Beatty has successfully employed liquor asenicalis, which he applies with a brush night and morning, until ulceration takes place.

Clinic of Intestinal Diseases.—Prof. H. Nothnagel, of Vienna. Nothnagel, in the fourth part of his clinic of intestinal diseases, speaks of the relations of the evacuations in chronic intestinal catarrh. In one series of cases, constipation is present (a good evacuation taking place every two or four days, and sometimes only after the administration of a purgative), which N. considers as the physiological behavior in simple chronic catarrh of the large intestine, while other sorts of evacuations are caused by fortuitous and occasional circumstances. Anatomically, the catarrh of the large intestine is found localized in the cœcum. The cause of peristalis is, according to N. dependent upon a diminished automatic activity of the nervous apparatus of the intestine. In a second series of cases, an evacuation takes place daily, the feces are like jelly and often shapeless This softness results from the accumulation of mucus from the upper sections of the alimentary canal, from increase watery ingredient (in extensive atrophy of the mucus membrane of the large and small intestine), and from large accumulation of fat (in extensive disease of the small intestines). Still more frequent than this form is that in which relaxation and constipation alternate, and indeed several thin actions with colicky pains one day, follow with great regularity two days of inaction or difficult passages. The fundamental character of this form is the constipation, caused by diminished automatic activity of the nervous apparatus; the diminu-

tion, however, is not so great but that increased peristalsis arises, excited by the contents of the intestines stagnating for several days; the colics also point to that. We must not consider, as arising in the physiological relations, those cases in which regular evacuations, constipation and diarrhœa alternate; the irregularly recurring periods of diarrhœa are always produced by an acute exacerbation of the chronic catarrh. In a small number of cases numerous daily evacuations continue for a month or more; and in those cases where chronic catarrh and diarrhœa go together, we might safely consider that the small intestine is involved near the colon. The causes of the diarrhœa are to be sought in badly digested food, which first of all produces an irritation upon the diseased mucous membrane of the small intestine, and, in consequence of the increased peristalsis, is hurried undigested into the colon, where it excites the chronically inflamed intestinal wall to more vigorous peristalsis. Two rarer forms of diarrhœa are also observed: in the one the diarrhœic stools take place from late at night to early morning; in the other an abnormal evacuation follows a certain meal. Thus there are persons who have an action regularly every morning, and during dinner suddenly experience colicky pains and have a diarrhœic evacuation, after which they have neither pains nor stools until next morning. In these cases it must be assumed that the entrance of food in the stomach sets on intestinal peristalsis.

To sum up: 1, when the large intestine is exclusively involved, we find constipation; 2, when the small intestine is alone affected, constipation likewise; 3, in catarrh of the large and small intestines, persistent diarrhœa may arise; 4, in catarrh of the large intestine, constipation may alternate with diarrhœa. We must distinguish from these chronic catarrhs the venous congestions of the intestines, especially in heart disease. If the valvular defect be compensated, the evacuation is normal. If dropsy, cyanosis, etc., supervene, the bowels becomes sluggish: in these cases, anatomically, we find cyanosis and œdema of the intestine without catarrh, and the cause of the constipation is to be sought for in a diminished functional activity of the nervous apparatus, resulting from insufficient oxygenation; towards the end of life the evacuations are completely suspended; sometimes, however, diarrhœa also appears.

In a third series of cases, alternating diarrhœa and constipation are observed. In these cases we find, anatomi-

cally, near the venous congestion, catarrhal change of the small and large intestine.

Helenin in Diseases of the Respiratory Apparatus, Dr. Francisco Valenzuela.—The helenin was given in pills (1 centigramme—⅙ grain ten times a day), or in tincture (strength not stated) five drops three times a day. In broncho-pneumonia and tuberculosis, helenin always produces a remission of the cough, of the expectoration and of the pains in the chest. The sputa diminish and become purely mucous (gelatinosa). It leaves no narcotic effects, increases the appetite and improves the digestion. Hacking coughs are often cured with the tincture with surprising rapidity.

Tabes Doralis.—Symptomatic cure after the internal administration of nitrate of silver. Prof. Arpad Bockai.—B. has several times observed in the clinic of Prof. Koranyi cure of tabes dorsalis follow the prolonged internal use of nitrate of silver. He of course assumes that they were only so-called symptomatic cures; that is, only the symptoms of the disease disappeared, but the changes once established remained there, a view which Erb found corroborated by autopsies which he made iu two similar cases. At any rate the neighboring columns can proponderate, so that the functional disturbances can disappear.

The usual inactivity of nitrate of silver arises from an improper method of administration, since it either becomes reduced to insert pure silver, or else unites with chlorine to form chloride of silver.

B. gives it in pills (⅙ to ⅓ grain a day), which he prepared only with *argilla alba* with the aid of a few drops of water, and orders the drug only for some days. Prepared in this manner, the nitrate of silver does not crumble. The patients must take the pills on an empty stomach (because then the stomach contains very little hydrochloric acid), aud then drink milk afterwards. Silver-casein, or silver-albumen, is formed, which dissolves well in muriatic and lactic acids, and is easily absorbed.

Tuberculosis of the Uterus. Dr. Chiari.—Chiari exhibited before the Society of German Physicians, in Prague, at their meeting on October 12, a very rare form of tuberculosis of the uterus. This usually commences in the mucous membrane of the fundus or of the upper part of the body in the form of miliary tubercles, which later

on become caseous and confluent, wherefrom results a uniform caseous infiltration of the mucous membranes. The following departures from this typical form may be recognized: 1, implication of the deep muscular layers and formation of tuberculous cavities in the walls of the uterus; 2, encroachment of the infiltration upon cervix and vagina: 3, the very rare miliary tuberculosis of the entire uterus; 4, formation of a localized tuberculous abscess.

In the case exhibited there were three ulcers about the size of a quarter of a dollar, with hard margins and cheesy surfaces, and bases formed of muscular tissue already cheesily infiltrated.

The muscular tissue presented a recent miliary tuberculosis, likewise the mucous membrance of the cervix and fallopian tubes. Besides this, there were also old tuberculosis of the apices of both lungs, and subacute granular tuberculosis of most other organs. The case was still further complicated by the woman having seven weeks before lost a six-months' fœtus, and the question arose whether the tuberculosis had developed during childbed or had arisen during gestation. Chiari seems to favor the former view.

Treatment of Acute Nephritis. Dr. Aufrecht.—In the treatment of acute parenchymatous nephritis, Dr. A. recommends, at first, to put aside all diuretics and diaphoretics. The medicinal treatment consists in ordering of indifferent remedies; only in anæmia, after the disease has lasted some weeks, he employs the preparations of iron. A. considers the maintenance of a bland diet very important. Apart from the drinks (water, seltzer-water with or without raspberry syrup, sugar-water), he gives the patients for one week, and for two weeks if they can bear them, only oatmeal, groats and gruel, coffee with or without milk. Towards the end of the second week he first gives milk and bouillon, and gradually other foods.

By this regimen the author aims at avoiding highly nitrogenized foods, in order to relieve as much as possible, the epithelium of the diseased kidneys from their function of excreting nitrogen.

Hot baths, or baths with supplementary swaddling, were not employed by the author in any case, but he recommends warm baths twice a week. For the favorable result of his method of treatment, the author appeals to a case observed by him, in which complete anury had ex-

isted for eighty hours, and considers not unlikely that this case, if treated with diuretics and diaphoretics, would probably have terminated unfavorably.

Cold Douches in Febrile Disorders. A. Mohiljansky.—The author has made experiments on healthy subjects, and upon patients suffering from typhus and phthisis, eighty in all, and obtains the following favorable results, which illustrate the practical aspect of the question:

1. Cold shower bath (douches 60 to 77 F.), diminish the temperature of the fever patients not less than a bath of 77 F., lasting ten minutes. If the patient be given two shower baths, with an interval of one hour, the temperature will be reduced more than by the above mentioned baths. Two douches and one bath act better than two baths and one douche.

2. The action of the heart is rendered slower by the douche in fever patients, as is likewise the respiration, though in a less degree. The respiratory movements, however, become deeper and surer, though irregular.

3. The muscular strength diminishes most after the douche.

4. The so-called typhoid condition disappears, though only for a short time after the douche. By increase in the respiration the lungs become well filled and hypostasis thereby prevented.

Fat in the Urine of a Case of Poisoning by Phosphorus. E. Schütz.—A servant girl admitted into the infirmary had, four days previously, vomiting and pain in the stomach. She denied having poisoned herself. The skin had a yellowish color. The liver was enlarged. The urine was albuminous, The jaundice became worse in the following days. In the urine, numerous small polygonal and oval epithelial cells were seen, which presented the highest degree of fatty degeneration. There was no trace of nucleus or protoplasm, but, on the contrary, closely compressed, generally large drops of fat, partly concealing the border of the cells, and also abundant small drops of fat floating about free. Death took place three days after admission. The autopsy confirmed the diagnosis of phosphorus poisoning.

In a case of phosphorus poisoning reported by Erman, the urine appeared somewhat like milk, and it cleared up after agitating it with ether.

It appears as though the fat originated in the kidneys. Nevertheless, its origin from the blood is not excluded.

Test for Albumen in the Urine. Prof. G. Johnson.—J. recommends, as being at once the simplest, safest and quickest of all tests, a saturated watery solution of picric acid. This throws down even the smallest trace of albumen, at ordinary temperature, as a yellow precipitate, which is not dissolved by heat (but peptone is, for which this reaction, according to J., is to be recommended, and is better than Fehling's solution). In private practice, it is recommended to carry pulverized (not crystallized) picric acid in a small glass in the vest pocket, and to add a small quantity to the urine to be examined; a method which appears to him better than that lately recommended by Oliver, by means of impregnated reactive paper.

Sewing of a Severed Tendon. Dr. Gluck.—A woman received a wound over the metacarpo-phalangeal joint on the back of the hand. An abcess formed at the side of the wound, and after eight days it was found that the patient was unable to extend the fingers. At the operation it was discovered that the tendons of the extensor-digitorum communis and the indicator were severed. There was a defficiency of eight centimetres in length, and G., therefore, could not unite the extremities, and he resorted to another method. A bundle of catgut was passed through each end of the tendon and then tied. The patient can now, five weeks after the operation, perform every movement of extension. The case shows also that the catgut is not absorbed.

Treatment of Diphtheria by Papayotin. Dr. Schaeffer.—S. recommends in diphtheria, papayotin to be applied with a brush, in a 5 per cent. solution; the pencilling must be repeated every ten or fifteen minutes, and "already after a few hours, the exudations entirely disappear, the membrane is completely softened;" with the disappearance of the exudate the fever also sank. The only disadvantage which S. finds in the papayotin treatment is thh high price of the papayotin (one gramme costs $1 12). Ewald, in a note to Schaeffer's article, repeats the proposition which he made long ago, to employ an active pancreatine instead of papayotin, since it possesses albuminolytic properties as well as papayotin. Either the pancreatinum siccum or a

glycerine extract of the fresh glandular substance may be used.

Translations from French Journals.

Epidemic of Trichiniasis.—[In view of the recent attitude of M. Paul Bert upon the subject of trichiniasis and his extraordinary statements before the French Chamber of Deputies and their action thereon, the following may not prove uninteresting to our readers. M. Bert has been charged, not only in this country, but in France also, with improper motives, and as being not altogether unbiassed by outside influences in his arguments. The astounding statements made by that gentleman may not be known to many of our readers and it may be well to give an idea of them by quoting from an editorial in the New York *Medical Journal* of Jan. 29th: "Contrary to the general impression in France, M. Bert suggest that trichiniasis is not uncommon in that country, and he accounts for the error of those who think differently by maintaining, in substance, that the disease often passes unrecognized, being taken for typhoid fever." This and other statements are thus disposed of in the editorial in question: "He (Paul Bert), has nothing to oppose to M. Brouardel, and M. Granger's report; he does not contest the Andalusian origin of the outbreak in Malaga; he is silent with regard to Virchow's statement as to the non-occurreuce of trichiniasis of American origin in Germany; he deals in nothing but his own assertions." Nevertheless, acting upon the statements of M. Bert, the French Chamber, ignoring completely the report referred to in the following article of M. Vallin, and the report of Brouardel, and accepting the unsubstantiated opinion of M. Bert, prohibited the importation of American pork. The hint thrown out in the following article, that the action of the Chamber was based not upon "motives of a scientific nature" but upon those of "political economy," will undoubtedly be the conviction in the minds of all right-thinking persons. This article is taken from the *Journal de Médecine et de Chirugie Pratiques.*—Translator.]

The question of trichiniasis has recently attained a new interest on account of several epidemics which have occurred in Germany, and also by reason of several incidents which have taken place before the Chamber in regard to this question. We take from an article in the *Revue*

d' Hygiène some interesting details relative to the epidemic at Emersleben, a small village of seven hundred inhabitants situated in the Hartz mountains, an epidemic which gave rise to 250 cases of trichiniasis, with 50 deaths. The Minister of Commerce had charged MM. Brouardel and Granger with a mission to the infected locality for the purpose of investigating the causes of the diseases, the part taken therein by American pork and the measures of inspection, and prophylaxis, which have been enforced for several years in Germany. The result of their inquiries is the subject of M. Vallin's article.

The origin of the disease was found to be in an indigenous hog, the meat of which was examined by two inspectors who found no trichinæ, but who were, perhaps, not in a condition to make a thorough examination. Both of them ate of the meat of this animal and became sick. Besides it was possible to follow up day by day the persons who had eaten of this meat. This meat, which was hashed, was consumed raw for eight days; of those who ate of it while it was fresh, in the three or four days following the killing of the hog, a larger number were affected than of those who commenced to eat the meat towards the sixth or seventh day. It was thus that the proportion who died was 33 per cent. in those who ate of the meat upon the second day, while it was not more than 10 per cent. in those who ate on the fifth day, and fell to 0 in those who did not eat until the seventh or eighth day. It seems, therefore, that the trichinæ lose their vitality and die rapidly in hashed meat, even without its being smoked or cooked: the danger being greater in proportion to shortness of time after killing.

The study of this epidemic has also demonstrated that of all the persons who ate the meat, baked or boiled, not one was affected, while those who became sick ate it raw. A light heating, a baking of five minutes, sufficed, as several cases proved, to render the meat harmless. But, in Germany, it is a common thing to eat hashed pork spread upon bread just as we eat preserves. Therefore, it is easy to understand why trichiniasis is more frequent in that country than with us.

Finally, this epidemic had its origin in an indigenous hog, inasmuch as it was raised there, and the importation of American pork had nothing to do with it. Besides, Prof. Virchow has stated that there never was known in

Germany a single authenticated case of trichiniasis which could be truly imputed to American salt meat.

It is known that, upon the report of M. Brouardel, the decree prohibiting the importatron of American pork was raised, but that the Chamber did not ratify this latter decision, inasmuch as the prohibition is maintained at least temporarily. In the discussion which lead to this decision, motives of a scientific nature were brought forward. But, in presence of the known facts in regard to the inocuousness of this class of meat, motives are of no value. It may be said that it was the political economy side of the question which played the only part, inasmuch as it was so stated by several speakers who took part in the discussion, and in all likelihood these are the motives which will influence the promulgation of a final law upon this subject.

Whatever may be the ultimate decision upon this point, the study of this epidemic demonstrates once more that indigenous hogs, those of Germany, and above all, of Russia, are more dangerous to us than American hogs; that our methods of cooking, if followed, will put us beyond danger of the disease, and as has been very well said by M. Colin, before the Academy, three years ago, it is in the kitchen that war must be made against trichiniasis.

L. F. S.

THE INFLUENCE OF SEXUAL IRRITATION UPON THE DISEASES OF THE EAR.

By Dr. Weber Liel,

(*Monatschrift fur Ohrenheilkunde.*)

The diseases of the female sexual organs, and even the physiological accomplishments of their main functions often exercise an unfortunate influence upon the diseases of the ear.

Aural troubles, which claim as their sole cause an irritation or inflammation of the genital organs, do not attain, as a rule, a very great intensity. Contrary to this, however, we find that pregnancy, uterine flexions, etc., if they supervene during the course of an aural disease, exercise upon its progress and character a profoundly modifying influence. A simple catarrhal otitis, commonly insignificant, may be complicated by serious nervous and circulatory disturbances. The treatment in such a case, if directed solely to the ear, will totally fail, and can only succeed

when the disorder of the reproductive organs is corrected. Often the simple treatment of the genital disease will suffice to restore the ear to its normal condition.

Whenever a deafness becomes aggravated, and subjective morbid sounds are heard, in connection with some genital trouble, and only when such aural disturbances are due to the reproductive organs, electrization elicits the following diagnostic symptom: The patient experiences a very acute pain at a point on a level with the last dorsal and first lumbar vertebræ, whenever this spot is touched with the sponge of an electrode, whose opposite pole is introduced within the isthmus of the eustachian tube. This remarkable effect can be demonstrated with even a feeble continued current (generated by six or eight small Leclanche elements.)

A curious fact to note is, that whilst the spinal pain augments progressively with the continued application of the sponge electrode, the hummings, vertigo and other symptomatic aural disturbances cease completely, or diminish remarkably during the operation. In all cases of recent origin the hearing returns almost immediately to the normal standard: in the same case, the improvement of all the other symptoms is maintained during many hours.

The influence of sexual excitement upon patients with ear disease is particularly manifested in persons addicted to the practice of onanism, as is well illustrated in the following case:

I attended a young man who was troubled with a chronic suppurative otitis, associated with a perforation of the tympanum and with intra-tympanic granulations. He came from the country to enter a college, and at the same time follow treatment. Excepting this ear trouble, he was in perfect health. A short time after treatment had been instituted his ear was very much improved. At the end of two and a half months, the hearing power had been very much improved, the granulations had become barely perceptible, and the discharge had almost disappeared. But suddenly a great change took place. All the symptoms were deeply intensified, and the therapeutic measures which had proved so beneficial in the beginning now failed utterly to relieve the condition. For some time past I had noticed a change in the general condition of the patient, and especially in his physiognomy, which caused me to suspect that he had acquired the habit of masturbation. Upon closer inquiry I finally discovered that he had been

initiated into this practice by a vicious room-mate. It was not until he had been completely emancipated from his dangerous practice that the aural treatment was successfully renewed.—*Journal de Medicine et Chirurgie Pratiques.* R. M.

THE THERAPEUTIC VALUE OF SOME ANTIPYRETIC REMEDIES.

An antipyretic remedy, in order that it may deserve this name, should act promptly, effectively, and without producing any local or general derangements. In comparing the action of these agents Dr. Patella came to the following conclusions: Quinia, which is so often used and abused, should be given in doses of 2 or 3 grams (30 to 45 grains). A lowering of temperature, in consequence of its action, is observed from 6 to 8 hours after its administration. It is inconvenient on account of its damaging influence on the cardiac mechanism, etc., and because it has been known to cause sudden death in typhoid fever. Veratria sometimes succeeds where quinia fails; but its administration is not infrequently followed by dangerous symptoms. Digitalis, in the shape of infusion, has been used in the treatment of typhoid fever and other febrile conditions, but it is also inconvenient, and too often worthless as a febrifuge. The same may be said of salicine in doses ranging from 3 to 5 grams (45 to 75 grains.) Carbolic acid, when administered by the mouth, gives rise to gastric catarrh; given per rectum, in doses of 1 to 2 grams (15 to 30 minims or grains), it may prove advantageous as an anti-thermic agent, but it often causes broncho-pulmonary complications.

Salicylic acid should be preferred to quinia as an antipyretic, but its use often induces vomiting, pyrosis, cephalalgia, and even collapse. Thymol is not dangerous, even in doses of 2 or 3 grams (30 or 45 grains) every 2 or 3 hours. It does not depress the heart as much as the salicylates. Resorcine, which is much better tolerated by the stomach, produces a redness of the face, modifies the respiration, and revives the pulse. It should be given in doses varying from 1½ to 2 grams. Kairin, or kairolin, a derivative of chinoline, should be given in 30 to 40 centigram (7½ to 9 grains) doses, to be repeated hourly or every 2 hours. Filehenne and Hallopeau regard it as one of the best antipyretics.

All these agents are precious remedies in the treatment of all hyperthermic states, but, before proclaiming their great antipyretic virtues, it should be well proven that excessive temperature is really the most dangerous element in the pyrexiæ. (*Gaz. Med. Ital. Bulletin General de Therapeutique*, Feb. 29, 1884.)

R. M.

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

PUBLISHED MONTHLY.

Communications relating to medicine are invited from every source. Matters of more than ordinary importance are occurring daily to country physicians, brief reports of which this Journal would be glad to get.

In sending such communications, and others pertaining to Editorial Department, address DR. RUDOLPH MATAS.

Matters pertaining to business should be addressed to DR. L. F. SALOMON.
Direct in either case to P. O. DRAWER 282, NEW ORLEANS, LA.

EDITORIAL.

THE GOVERNMENT AND THE PHARMACOPŒIA.

[The topic discussed under this caption has lately been made the subject of so much and just comment by the medical and pharmaceutical press throughout the country that we deemed it advisable to consult the leading pharmacists of the city in this matter, all of whom emphatically expressed themselves against the re-writing of the Pharmacopœia, though all concurred in the opinion that it should be made the *official* "United States Pharmacopœia," by placing it unaltered in the Government's hands. In furtherance of our purpose, which was to make the JOURNAL's utterances upon this subject the expression of a most authoritative opinion, Mr. R. N. Girling, a gentleman of acknowledged eminence and authority in our pharmaceutical circles, kindly consented to take the matter in

hand and express those views which from the general and pharmaceutical standpoint (certainly the most interesting one) he might hold in regard to the special bill now before Congress. We are pleased to add that the views herein expressed are in complete harmony with the mass of editorial opinion, and especially with the views first emitted on this question by our appreciated contemporary, the *North Carolina Medical Journal*.—Eds.]

The proposition in the Randall bill, now before Congress, to give the General Government control of the Pharmacopœia, will be a matter of surprise to most of our physicians, and probably to all pharmacists.

Coming, as it does, so soon after the publication of the revision of 1880, which, owing to various causes, was not issued until nearly two years later, it would seem to any thoughtful observer that some more potent influence had caused the introduction of such a bill before the representatives of the nation than was at all commensurate with a desire for the public good, or for the advancement of Pharmaceutical science.

As to the desirability of the General Government assuming control of the Pharmacopœia, we are willing to presuppose that no particular objection would be raised, either by the medical profession or by pharmacists, against such a measure, provided that such change of control was effected somewhere near 1890: the time appointed for the next decennial revision.

As far as the Pharmacopœia itself is concerned, we are inclined to think that the last edition is sufficiently advanced for the present needs of the country, the medical profession, and also the practical pharmacists, and if, by any chance, it is not *all* that could be desired, it is, at least, superior to anything that a committee, as proposed in the Randall bill, would be likely to furnish; for the simple reason that the men who would, in all probability, be appointed on such a committee, would be new to such work, whilst it is a well known fact that each and every member of the *last* committee of revision was well posted as to the

requirements of a Pharmacopœia, and also in the progress and improvements in scientific and practical pharmacy, which had been made since the revision of 1870.

Moreover, the last committee, having heart and soul in the success of the work they had undertaken, naturally succeeded in producing a Pharmacopœia which, according to those most competent to judge, is, in every respect, superior to any previous revision, and, indeed, to any Pharmacopœia published in any country in the world.

The preceding revision of the Pharmacopœia had simply followed in the ruts of time-honored custom and required so many additional formulæ and explanations in the shape of dispensatories, and other kindred works, to place it in keeping with the times, that it became less useful than it would have been, had the same care and the same spirit of progress presided at its production and publication, as evinced in the revision of 1880. It will be contended that it is not perfect. What book of like nature can be entirely so? The very men who composed the committee of revision, well as they did their work, foresaw that such a thing as improvement was possible, and, therefore, invited criticism and suggestions from physicians and pharmacists, which were to have been acted on *before* the publication of the next revision; so as to make the work a thoroughly practical exponent of national pharmaceutical progress during the preceding decade.

If, then, objections can be raised to a Pharmacopœia compiled by men, who, for the most part, have made pharmacy a special and life-long study, how much more real will be those that will be raised against the work of a committee in which the pharmacist is practically ignored?

It is hard to conceive what advantage will be gained by a new Pharmacopœia should the Randall bill become law. It will put pharmacists to unnecessary and unwarrantable expense in conforming to the new formulæ, as ordered by a commission appointed under Government auspices, and composed of men whose scientific attainments, as applied to pharmacy, would probably be of little practical value.

Moreover, the chances of confounding dissimilar preparations under similar titles, and the risk of error to which it would necessarily lead, would be increased to a maximum, since our physicians and pharmacists, having so recently become accustomed to the new formulæ of the Pharmacopœia of 1880 in writing and dispensing prescriptions, would be seriously inconvenienced if they were obliged to memorize the formulæ of the proposed edition so soon after they have taken the trouble and pains to make themselves familiar with those of the last one.

Neither would any advantage be gained, from a legal point of view, since it has been proven, time and again, that all courts of law, either Federal or State, recognize the Pharmacopœia as it now exists, as the standard authority in rendering decisions wherein the strength or purity of pharmacopœial preparations or chemicals are called in question.

Should the Government persist in carrying out the proposed measure, it will certainly savor very strongly of a desire, on the part of the promoters of the bill, to further the speculative ambition of some particular publishing concern, or of some one city of the Union, without any reference whatever to the needs or desires of the people at large, nor of those of the mass of physicians and pharmacists who are specially interested in the perfection of pharmaceutical preparations and methods, and in the publication of a standard guide, compiled and edited by men in whose ability and scientific attainments they have implicit confidence; and not by men appointed directly or indirectly through the influence of partisan lobyists.

If the Government so desires, let it officially acknowledge the present revision of the Pharmacopœia as the *Pharmacopœia of the United States*, and if there should arise any necessity for corrections or additions between now and 1890, these might be easily agreed on by a joint committee, and published in such a form as not to needlessly interfere with a work which has, so far, no superior.

It will be time enough in 1889, or thereabouts, for the

Government to appoint the necessary number of Commissioners to represent it more effectually in the next revision; but the committee should in no wise be so organized as to preclude the chance of securing the absolutely necessary services of the really scientific pharmacists of the country, who are not, nor in all probability will have any desire to become the appointees of the Government.

Men such as these, have given their services freely and cheerfully in the cause of science without pecuniary reward, and would doubtless do so again. To them the country, and especially the professions of medicine and pharmacy, owe a debt of gratitude, which, be the fate of the last revision of the Pharmacopœia what it may, can never be entirely repaid. R. N. Girling.

Correspondence.

Hæmorrhagic Fever is not Essentially a Malarial Fever.

Roane, Lincoln Parish, La., March 16, 1884.

Editors New Orleans Medical and Surgical Journal:

Gentlemen: Apropos of Dr. McCaleb's article in the March number of your Journal, I offer the following remarks on hæmorrhagic fever, trusting that investigation of the subject may lead to a better knowledge of its predisposing and exciting causes.

Extensive prevalence of the diseases known as "malarial hæmorrhagic," or as more commonly called, "swamp fever," in malarial districts, is probably the chief reason that it is supposed to be etiologically malarial. Its special pathology makes this dictum exceedingly doubtful. It is true that it is found only in subjects that have lived in or near the large swamps of the South, and in cases of old malarial poisoning: but, let the disease be what it may, in such localities it is more or less associated with malaria.

Malarial fever, in all its forms, may be found in or near all the large water courses of the Union It is a well digested fact that the three primary factors in the production of malaria are heat, moisture and organic matter. Wherever these conditions abound, malarial fever is spontaneous.

I have witnessed it (malarial fever) in all its varieties, on the Red River of the North, on the prairies of Kansas and Western Missouri, in Montana and in the swamps of Louisiana. Probably nowhere on the whole globe is malaria a greater scourge than on the overflowed lands of the Missouri River. After the June-rises thousands of acres, uncovered by the receding waters, leave a vast area of decaying vegetation, from which, under action of solar heat, emanate effluvia which poison the atmosphere for many miles. Almost all the people inhabiting these regions are stricken *en masse* with malarial fever in various guises; and yet there, where malaria exists in all its forms and with such virulence, no symptoms pathognomonic of swamp fever (hæmaturia) are found.

In this State, in parishes remote from swamps, where fatal malarial toxæmia is prevalent, there is no hæmorragic fever. If malaria be the true and only causative agent of this disease, why is it not met with wherever malaria abounds?

I append a few diagnostic differences between malarial fever and hæmorrhagic fever, as taken from my case-book:

Malarial Fever.	Hemorrhagic Fever.
1. Usually ushered in with chill.	1. Discovery of hematuria often first symptom followed by fever and rigor.
2. Always characterized by intermission or remission.	2. No remission and intermission.
3. Where chill is a prominent symptom, remission or intermission is complete.	3. Where rigors are frequent there is no complete remission or intermission.
4. There is no peculiarity of skin or conjunctiva.	4. Skin and conjunctiva intensely yellow.

5. Kidney secretions scanty.	5. Kidney secretions much increased, thick and bloody.
6. Prevails North, South, East and West.	6. Does not prevail in some of the most malignant malarial districts.
7. Salts of quinia a certain specific.	7. Not a specific, and its exhibition in the earlier stages adding coal to fire.

The two diseases may co-exist, but that there is a specific cause, apart from malaria, that produces hæmorrhagic fever, I have no doubt. Owing to the fact that it is not seen often in large cities, our medical teachers have not had an opportunity of studying either its clinical history or pathology: and the few post mortems that have been reported throw no light on the subject.

In a future number I propose to continue the discussion of the etiology and pathology of this grave disease, with a synopsis of one hundred and fourteen cases, as treated by myself and Dr. L. W. Gregory, of Ouachita parish.

Respectfully, W. T. Smith.

Charity Hospital.

The following report, submitted to the Board of Administrators of the Charity Hospital, at its last meeting, March 15, will doubtless interest many of your readers:

To the Honorable Board of Administrators of the Charity Hospital:

Gentlemen: The undersigned committee for the examination of students have the honor to report as follows:

The examination was held at the Charity Hospital, on March 10, at 2 o'clock, P. M. There were three sets of questions propounded: these were graded according to the several categories of students to whom they were addressed, viz: to

First—Incoming students.

Second—Second course students; and

Third—Outgoing students.

A copy of each of these different sets of questions is

herewith submitted in Appendix A. After conscientious and laborious study your committee herewith tender, in tabulated form, the results they have reached in examining the answers presented to the questions by the several classes of candidates above mentioned.

Your committee desire to state, that in rating the competitors they have adopted the same standard as last year, namely: 100 was taken as the type of perfection or excellence; in other words, it was the highest figure attainable. From this was subtracted *one unit* for each error detected in the various replies recorded, the result being expressed in the accompanying table of rating.

Your committee respectfully recommend that Messrs. J. D. Bloom, A. J. Meyer, R. D. Palmer, W. J. Lane, E. J. Kearney, W. L. Chew, J. Lawrans, be admitted as the incoming class to fill the vacancies which will exist in the corps of hospital students.

Your Committee further recommend that Messrs. Chas. L. Seemann, A. A. Allain, E. P. Lowe, B. A. Colomb, W. H. Blanc, H. S. Olliphant, W. A. Duringer, who have satisfactorily undergone the prescribed examination, be admitted to a second year's course at the hospital.

Messrs. R. M. Littell and R. L. Riley, who have also been submitted successfully to the same test, contemplate graduating in medicine and leaving the institution.

The ranking member of the outgoing class of students is to receive a gold medal, provided by the Board of Administrators, in token of highest standing. In this connection your committee report that the award has been made to Mr. John Callan, and then that Messrs. Jas. Leake and Frank E. Artaud stand on a parity. Next in order, and also equal, are Messrs. Ernest Laplace and H. B. Williams.

Respectfully submitted,

C. J. Bickham, M. D.
Thos. Layton, M. D.

We learn that the report was received and the thanks of the Board returned to the committee.

The successful students were then called into the Board-room, and Dr. Layton addressing them, said he was called upon to present a gold medal to the student of highest rank. In such testimonials there was much meaning, he said, and their greatest value lay in the stimulus they carried to new and greater exertion.

Dr. Layton then presented to Mr. John Callan a beautiful gold medal bearing the following inscription:

Obverse:

CHARITY HOSPITAL,

Pulmam qui meruit ferat,

New Orleans, 1884.

Reverse:

Awarded to

JOHN CALLAN, M. D.,

by the

BOARD OF ADMINISTRATORS,

in token of highest standing in outgoing class of students.

Mr. Callan returned his thanks with grace, amid the applause of his fellow-students.

Mr. Marks, the secretary, then read the report of the examining committee, and business being done, the students were asked to participate in a punch.

REVIEWS AND BOOK-NOTICES.

A Treatise on Pharmacy, Designed as a Text-Book for the Student and as a Guide for the Physician and Pharmacist, Containing the Officinal and Unofficinal Formulas, and Numerous Examples of Extemporaneous Prescriptions. By Edward Parrish, late Pro-

fessor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy, etc. Fifth Edition, Enlarged and thoroughly Revised by Thos. S. Wiegand, Graduate of the Philadelphia College of Pharmacy: with Two Hundred and Fifty-Six Illustrations. Philadelphia: Henry C. Lea's Son & Co., 1844. New Orleans: Armand Hawkins, 196½ Canal street. 8vo. pp. 1090. [Price $6 00.]

The onward march of the medical sciences, the continued revolutions in therapeutic methods and the mutability of professional opinions are constantly reacting upon that subservient but indispensable knowledge, pharmacy. Hence it is that we find our old and valued acquaintance, "Parrish's Guide," assuming a rejuvenated appearance and burdened with a fresh load of pharmacal utilities, which the late revision of the United States Pharmacopœia, and the steady accumulation of pharmaceutical lore, during the last decade, have forced upon it.

The changes required have made the present editor's task a ponderous and responsible one, and considerable credit is due him for the able manner in which he has reconstructed the older volume, without in the least detracting from its recognized and useful characteristics.

The volume has been increased in size, "in spite of earnest efforts at condensation and omission of obsolete matter." The new preparations of the Pharmacopœia have been introduced, together with its tests for chemical and officinal compounds, and its system of parts by weight in place of definite quantities: other changes too numerous to mention, but equally valuable, have been added to the list of improvements, and nothing is left but to recommend the present edition as heartily as we have always done its predecessors.

Elements of Human Physiology. By Henry Powers, M. B., Lond., F. R. C. S., Opthalmic Surgeon to St. Bartholomew's Hospital, London Examiner in the Board of Anatomy and Physiology, Royal College of Surgeons. Illustrated with Seven Engravings. Philadel-

phia: Henry C. Lea's Son & Co., 1884. 12mo. pp. 389. Price, $1 50. New Orleans: Armand Hawkins. 196½ Canal street.

The Dissector's Manual. By W. Bruce Clarke, M. A., W. B., F. R. C. S., Senior Demonstrator of Anatomy and Operative Surgeon at St. Bartholomew's Hospital: Examiner in Anatomy to the University of Oxford, etc.: and Charles Barret Lockwood, F. R. C. S., Demonstrator of Anatomy at St. Bartholomew's Hospital and Surgeon to the Great Northern Hospital. Illustrated with Forty-nine Engravings. Philadelphia: Henry C. Lea's Son & Co. 12mo. pp. 390. Price, $1 50. New Orleans: Armand Hawkins.

In a previous number of this JOURNAL we noticed and favorably expressed ourselves upon the merits of the "Students Series," now in course of publication by the Messrs. Lea. The two books before us are members of the same series, and are as worthy of encomium as their predecessors. The manuals appear to have been admirably planned: they bear, so far, the stamp of conscientiousness and liberality on the part of the publishers, and uncommon ability and thoroughness on that of the authors. There is no doubt that when completed (if the publishers continue in the same excellent spirit), the collection will constitute a complete library in itself, as convenient and useful as any student, no matter how advanced, will be likely to need in the course of his pre-doctoral career.

We find that "Powers' Physiology," contains a remarkable amount of information for so small a volume, on its special subject, and this we readily understand is due to the exclusive limitation of the author's labors to his particular topic—human physiology. By carefully avoiding those digressive excursions into collateral and subordinate fields, which are forced upon writers of larger treatises, Dr. Powers gives to his readers a very concise, but satisfactory, exposé of the really essential and most advanced knowledge of the *physiology of man*. For most of the subjects omitted in the present work, we find satisfactory

compensation in other complementary volumes which have appeared simultaneously or will be given in forthcoming manuals. Thus we see that all details of structure are passed over in silence, since they are fully given in "Klein's Elements of Histology." The clinical chemistry, by Dr. Ralfe (already noticed in this journal), has rendered is unnecessary to mention many organic substances and other data pertaining to physiological chemistry. We are told, that "all descriptions of instruments and methods of procedure in practical physiology have been omitted, since they will appear in Dr. McGregor Robertson's work on Physical Physiology: and lastly, the appearance of Prof. Bell's treatise on Comparative Physiology, has led to the exclusion of many references to Animal Physiology." We have no hesitation in saying, that if students will carefully study these three volumes separately, and in conjunction, one with the other, as directed by the author, they will have no reason to regret their purchase; but, on the contrary, find themselves ably prepared to penetrate into the deeper mysteries of their professional calling, and undoubtedly better armed to face their inexorable judges (we can only *hope* they are so in this country) in the terrifying precincts of the green-room.

Messrs. Bruce Clarke and Lockwood have creditably acquitted themselves in the production of their "Dissector's Manual." Outside of a few faults, here and there, they have written a book that can hardly be rivalled as a *practical* aid to the dissection of the cadaver. Their purpose, which is, "how to describe the best way to display the anatomical structure," has been fully attained. They excel in a lucidity of demonstration and graphic terseness of expression, which only a long training and intimate association with students could have given. With such a guide as this, accompanied by so attractive a commentary as Mr. Treeve's "Surgical Applied Anatomy" (same series), no student could fail to be deeply and absorbingly interested in what is usually regarded as the "dry and mechanical study of anatomy."

The Field of Disease: A Book of Preventive Medicine. By Benjamin Ward Richardson, M. D., LL. D., F. R. S., etc., etc. Philadelphia: Henry C. Lea's Son & Co., 1884. New Orleans, Armand Hawkins. 8vo. cloth; pp. 737. [Price, $4 00.]

The appearance of this work by Dr. Richardson, who has, done more than, perhaps, any other toward the prevention of disease, will be hailed with delight by the medical profession. While written, as the author states, "for those members of the intelligent reading public who wish to know the leading facts about diseases of the human family, their causes and prevention," it will prove at the same time interesting and instructive to the practitioner.

The subject of preventive medicine is not a new one, but the recent impetus which has been given to its study, and the fact that the prevention of disease has now become recognized as falling within the imperative field of a physician's duties to his clients and the public, coupled with the recent rapid strides which have been made in the science of keeping people healthy, render a work of this kind essential not only to the sanitarian and practicing physician, but to the laity also: and this work should, therefore, be in the hands of every physician whose aim is to relieve suffering humanity, not only by the treatment of disease, but by its prevention also.

The author very aptly says: "He is the most accomplished and useful physician who knows most both of the prevention of disease and of the nature and treatment of disease:" and a physician to do his whole duty must recognize the fact that the relief of humanity depends as much upon preventing as curing disease.

Unfortunately, it may be presumed that this work of Dr. Richardson will not fall into the hands of many of those for whom he intended it, but to those of the medical profession who have not heretofore given much attention to preventive medicine, and to those of us who wish to learn as much thereof as possible, it will be welcome, not only as instructive to ourselves, but as a means, through its clearness and conciseness of details, by which we may be

enabled to instruct those under our charge how they may keep well, or, at least, avoid many of the diseases to which they now fall victims.

We are pleased to observe that the author in describing diseases has confined himself to the names with which all are familiar, and has carefully avoided being led into the present craze for new titles coined to satisfy the caprice or pedantry of many modern writers.

After reading the book, our only regret is that Dr. Richardson did not devote more space to the real subject of his work. So large a portion of it is taken up with the causes of diseases that only sixty-eight pages are devoted to prevention. True, it may be urged that a knowledge of the causes itself suggests the preventive, and so it does to a great extent, but to instruct one who is not a physician, as the book is intended to do, the author might have entered more fully into this subject, even if it necessitated an enlargement of the work. At the same time we do not wish it understood that we are fault finding, for the author has earned a debt of gratitude from the world through his effort to "systematize the preventive part of medical science so far as that is now known: to bring the preventive part into entire accord with the remedial; to let the world at large understand the inter-relationship which exists between the two parts, and by a sympathy of action, based on knowledge, to enable every man and woman to assist in that part which tends towards prevention." Let us hope that this aim of the author will be accomplished, and let us thank him for being the first to give to the world a schematic work upon this subject, which is sure to bring forth good fruit, and cannot prove otherwise than valuable to both physician and laity.

Researches on the Pulse-Wave. An Experimental Inquiry into the Causes of the Variations of the Pulse-Wave Velocity. By A. T. Keyt. Cincinnati, Ohio: pp. 28. (Reprint from the *Journal of the American Medical Association.*)

A clear account of a series of ingeniously designed and admirably executed experiments, with logical deductions from the results obtained. The conclusions are certainly in keeping with physical laws, and all apparent discrepancies are cleared away by analysis of counteracting influences and equation of their values in determining a result. Besides its physical import, this essay has a practical outcome in offering valuable assistance in the interpretation of sphygmographic teachings. S, D. K.

Transactions of the American Gynecological Society. Vol. 8. For the Year 1883. New York: D. Appleton & Co., 3 and 5 Bond street, 1884.

The American Gynecological Society is evidently a success, and its meeting in Philadelphia last September, of which the volume before us is a record, was certainly one of its most brilliant and interesting gatherings. The widespread interest on all subjects that pertain to the domain of gynecology immediately concentrated the attention of the profession in the proceedings of this meeting, at the time it was held, so that few of the utterances, teachings and innovations that were there enunciated or introduced by the eminent fellows of the society, escaped the vigilant eye of the press or remained in dormant quiescence till the appearance of the present volume. Thus it is that few of the reading men of the profession are unacquainted with the essential and most important teachings contained in this volume. Still, the extracts furnished by the press have been necessarily very incomplete, and even these are so scattered among the journals that few can do without this volume if they are at all interested in gynecological pursuits, or have any inclination to keep thoroughly abreast of the great current of knowledge, and of this branch especially, which is sweeping by us with almost vertiginous rapidity.

All the papers read at the meeting were highly practical and interesting: and, how could it be otherwise when such

leaders as T. Gaillard Thomas, Fordyce Barker, Thomas Addis Emmett, Albert H. Smith, Theophilus Parvin, Wm. Goodell, Henry F. Campbell, Robert Battey, and others, known throughout the world as guiding spirits in their field of practice, meet to narrate their experiences?

Most of the papers were fully discussed, notably those on "Superinvolution of the Uterus," by Dr. Joseph Taber Johnson, of Washington; on "Cleanliness in Surgery," by R. Stansbury Sutton, of Pittsburg, Pa.; on "Hot Water in Secondary Hemorrhage after Pelvic Operations," by Albert H. Smith, of Philadelphia; on the question: "Is the Extirpation of the Cancerous Uterus a Justifiable Operation?" by J. Reeves Jakscon, and a "Study of the Etiology of Perineal Laceration, with a new method for its repair," by T. Addis Emmett. The latter, notwithstanding the great discussion it originated, and the praise it has received, should be re-written and profusely illustrated in order to make it comprehensible to the mass of the profession. It is reported that Dr. Emmett illustrated his new operation with diagramatic illustrations on the blackboard, a procedure which, no doubt, greatly benefited his hearers. Those, however, who have been obliged to depend on their imaginative faculties, and the simple reading of reported descriptions, or those given by the author himself, have either been most dolefully at a loss to appreciate his ideas, or have been led into false conclusions about them, if we are to judge by the number of interpretations we have heard given of this new perineoraphy; and this certainly should not be the case with a writer usually possessed of such graphic powers and clear, good, style as Dr. Emmett. Dr. Wm. Byford's "Remarks on Chronic Abscess of the Pelvis," and Dr. Engelmann's "Ergot: Its Use and Abuse," were evidently much appreciated and should be read by all practitioners.

The society elected the following officers for the current year: President, Albert H. Smith, of Philadelphia; Vice-Presidents, James R. Chadwick, of Boston, Samuel C.

Busey, of Washington; Secretary, T. P. Foster, of New York; Treasurer, Mathew D. Mann, of Buffalo.

The next annual meeting of the society will take place in Chicago, on the last Tuesday in November, 1884, and the succeeding Wednesday and Thursday.

In preparing the eighth volume of Transactions, the editor, Dr. Foster, has done himself credit, and has fully confirmed the excellent judgment of the society in electing him its most important officer. The volume is elegantly bound, gilt edged, and beautifully printed.

TRANSACTIONS OF SOCIETIES.

The "Code" Question.

NEW YORK STATE MEDICAL ASSOCIATION.

The New York State Medical Association has just issued in pamphlet form a report of the proceedings of the convention held in the city of Albany, February 4 and 6, 1884, at which the Association was organized on a permanent basis, together with a list of founders, representing the various counties of the State, to the number of 168.

The Canvass of the State.

At the first meeting, February 4th, Dr. Gouley made a report of the canvass of the State which had lately been completed. In regard to the circular which had been sent to every member of the regular profession in the State, so far as known, the following figures were given:

The proof is found to contain the names of -	5219
Since the appearance of the proof new names have come in to the number of - - - - -	67
Total - - - - - - - - -	5286
Since the beginning of the canvass there have died	83
	5286

Number of names stricken off from other causes	201
Leaving a total (given in the corrected catalogue) of	5002
Number of those who have not expressed their preference	1142
Total number of votes recorded	3860
For the National Code (corrected number)	2547
For the "New Code" (corrected number)	1040
For no Code (corrected number)	239
Unclassified (corrected number)	34
Total	3860

The canvass of the State Medical Society showed the following figures:

For the National Code	193
For the "New Code"	134
For no Code	19
Uncommitted	36
Total	382

In some remarks on the report of the canvass Dr. Gouley urged speedy action in the formation of a separate association on the ground that there was not the least chance that the National Code of Ethics would be re-enacted by the Medical Society of the State of New York as long as a two-thirds majority was required. There was not a two-thirds majority, and he did not believe such a majority could be obtained in five years or more.

Dr. Flint's Address.

Dr. Austin Flint, Sr., made an eloquent address, in which he gave the recent history of the conspiracy which culminated in the adoption of the New Code by the State, and which first publicly made its appearance in the medical law of 1880, and also some account of the measures taken to counteract its baneful influence. It opened as follows: "It is more than a year since I have publicly spoken to an audience of friends on the questions which have at last divided the medical profession of the State of New York.

As you all well know, thus far the battle-field in the warfare against the honor and dignity of the profession has been mainly in the city of New York. In the city of New York the conspiracy which brought about this deplorable conflict that has been forced upon us, had its inception. The attack upon the most sacred traditions of our profession was there made with a malignant rancor that can only be fully appreciated by those who have been personally involved in this unhappy contest. I say it in all modesty, but we of the city of New York come before you as veterans from the front, bearing scars. If we venture to offer suggestions with regard to future action, if we beg you to learn a lesson from our experience, it is because we are unhappily too familiar with the arrogance and the unscrupulous methods of our enemies within the profession. Our experience teaches us that but one course is now open to those who are unwilling to remain in the false and humiliating position in which we are placed. The proper course is for us to organize a new State Association, to be composed exclusively of those who refuse to countenance professional relations with irregular practitioners."

The address concluded in the following words: "The issue has been forced upon us. We stand in the actual fact of a divided profession. The State Society and Society of the County of New York have seceded from the regular profession of the United States. We made no movement looking to the formation of a loyal State Association until the most vigorous efforts to redeem the existing societies had signally and hopelessly failed. We are now cast out of fellowship with the regular profession of this great country, as represented in the American Medical Association and in the medical societies of other States. We must redeem the State of New York. There remains but one course to pursue, and that is to form an association of our own. The bitter fight, the disgraceful spectacle of a contest between members of a devoted and honorable profession, are things of the past. The war is ended. Let us organize and live together in peace, working hand in

hand for the advancement of the science of medicine. Let the men who are so blind or so misguided as to think their course is right, or who cannot resist the temptation to take tribute from those who persist in supporting the enemies of truth and of our universal science of medicine, go their own way and consult on terms of equality with any and all 'legally qualified practitioners of medicine,' whatever form of charlatanism they may assume! I hope, Mr. Chairman, that a New York State Medical Association will be organized to-night in affiliation with the regular profession of the United States; that the existing county societies whose membership is loyal will put themselves at once in affiliation with the new State Association; and that in counties in which the existing societies cannot be brought in bodily new associations will be promptly organized, to be composed exclusively of members of the profession who uphold the National Code of Ethics."

Plan of Organization.

The plan of organization adopted provided: (1.) That the State should be divided into five geographical districts. (2.) That a nominating committee of eleven members should be created. (3.) That the nominating committee should name the various officers, subject to the approval of the Association, and also two members from each district, who, together with the titular officers and one member appointed at large by the President-elect should constitute the Council for the management of the affairs of the Association. (4.) That the Council should complete the organization, prepare a constitution and by-laws, in accord with this plan, to be presented at the next meeting of the Association, and file articles incorporating the New York State Medical Association and also county associations as branches of the latter. . . . (8.) That the initiation fee should be five dollars, and the annual dues three dollars. (9.) That the Code of Ethics, which should form an integral part of the By-laws of the Association, should be the same as that adopted by the American Medical Association.

(10.) That the Association should hold annually one session, which should last three days or more.

A resolution was also adopted to the effect that all physicians in the State of New York who were in good standing in the present county societies, and who subscribed to the Code of Ethics of the Association, could become members thereof upon paying the initiation fee and signing the Constitution and By-laws.

Meeting of the Council.

At a meeting of the Council held after the adjournment of the Association, Drs. A. Flint, Jr., J. W. S. Gouley, and N. C. Husted were appointed as a special committee on the preparation of a constitution and by-laws for the Association. Dr. A. Flint, Jr., Dr. Van de Warker, and Dr. Gouley were appointed a committee to secure the co-operation of a medical journal in sympathy with the wishes and interests of the Association.

On motion of Dr. Van de Warker, it was resolved that the members of the Association should be designated Fellows, and Drs. E. M. Moore, A. Flint, Jr., and the Treasurer, Dr. J. H. Hinton, were appointed a committee to prepare a seal for the use of the Association and a form of certificate of Fellowship.—*Boston Medical and Surgical Journal.*

Current Medical Literature.

Puncture of the First Portion of the Arch of the Aorta.—Mr. T. Pagan Lowe, House Surgeon to the Royal United Hospital, Bath, read the following case before the Bath and Bristol Branch of the British Medical Association, which he considered as of some medico-legal interest:—

A few nights ago, I was called in haste to see a man who had been stabbed in a public house. I found the man dead,

and learnt from the bystanders that, about ten minutes before, he had been stabbed in the neck. Immediately on receipt of the blow, he exclaimed, "I am stabbed," and fell back into the arms of a man near him. He did not speak, and died in about four minutes. On examination, I found a small triangular punctured wound situated on a level with the upper border of the sternum, just internal to the right sterno-clavicular joint; it measured three-quarters of an inch in one direction, and about half that in the other. A few drops of blood represented the whole of the hæmorrhage that had taken place externally. At the necropsy the following day, I found that the weapon, which was a common pruning-knife, had taken a direction downwards and backwards, entered the thorax between the cartilages of the first and second ribs, notching the sternum. It had perforated both layers of the anterior fold of the right pleura, entered the pericardium on its upper aspect, and penetrated the anterior wall of the aota one inch from the valves. Blood had been poured out in huge quantities, filling the pericardium, and finding its way along the track of the wound into the right pluera, which it had about half filled. No other important structures were injured.

The small amount of external hæmorrhage is a notable feature in the case. It is easily accounted for. The skin-wound, owing to the direction of the blow downwards, was valvular, and retracted upwards as soon as the knife was withdrawn. Some impediment in this way was offered to the outward escape of the blood; but the chief factor in its prevention was the laying open of the right pleural cavity, into which the hæmorrhage had free vent. This latter circumstance would also tend to relieve the distension of the pericardium, and thus account for the length of time the patient survived such an injury.—*British Medical Journal.*

Bichloride of Methelyne and its Substitutes.—Dr. F. E. Junker states that he has recently had opportunities of administering Regnauld's anæsthetic mixture, consisting of four parts of chloroform and one of methylic alcohol by measure in twenty cases, both in the Samaritan Free Hospital and in private practice. Of these, fourteen were abdominal sections for the removal of one or both ovaries and of myomas of the uteus; three were operations for ruptured perinæum, two for the removal of fungous growths

in the uterine cavity by means of the curette, and in one case a bundle of enlarged and infiltrated glands was extirpated from the axilla, subsequently to an amputation of the breast.

The ages of the patients ranged between 23 and 69 years. In all these cases, the heart was free from any affection; the pulse at the commencement of the anæsthesia varied: owing to the different degrees of nervousness, which always prevails more or less before an operation, it became quiet when full narcosis took place, and ranged, after the operation, from 68 to 90. The rhythm of the respiration remained normal. The pupils dilated during the first stage of the anæsthesia, but became either normal or contracted after complete narcosis had taken place. Muscular excitement, sickness during and after the narcosis, were absent in every case. The complexion was either unaltered or slightly flushed, never haggard or cyanotic: the skin moist from gentle warm perspiration. The patients appeared as if in normal sleep and wake to full consciousness soon after stopping the administration of the anæsthetic mixture.

According to mean calculation, 1 4-5 drachms produced complete narcosis in 6 minutes (36 drachms, 120 minutes), and 8 1/6 drachms were given in one hour (172 drachms in 20).—*British Medical Journal.*

ITEMS.

The feud which has long existed between the leading medical colleges of Louisville, viz., the University of Louisville, and the Louisville Medical College, has lately come to an issue in a pen-encounter between Dr. David W. Yandell, of the former, and Dr. W. H. Galt, of the latter, who have severely scratched each other through the medium of their pointed articles in their respective journals —the *American Practitioner* (Dr. Yandell's), and the *Medical Herald* (Dr. Galt's). Dr. Yandell no doubt has inflicted heavy damage on the rival school by the convincing and detailed *expose* which he makes of certain irregular and even disgraceful practices which were apparently indulged in by the "College" men in order to secure large patronage. Notwithstanding the apparently unanswerable charges made by Dr. Yandell, Dr. Galt, of the "College," has answered in a supplement to the *Medical Herald*, in a

manner which deserves our admiration for the consummate ability displayed by the writer as a polemical tactician and for a fecundity of resources in so difficult a position, which is more like the work of a Prentiss, a Dana or Greely, than that of a modest medical journalist. We fear, however, that with all his brilliancy and talent, Dr. G. is "slashing water with a saber" when confronting such evidence as that which his opponent appears to possess.

An Excellent Way of Giving Quinine.—Dr. F. E. Daniel, of Fort Worth, Texas, suggests the following method, which we believe highly recommendable: Finding it is not generally known, it is with feelings of some satisfaction that we suggest a method that we employ with perfect success as far as concealing the taste goes, and obviating vomiting, the desiderata long desired. It is simply to give the powder enveloped in the white of an egg. Press the powder into the smallest bulk; drop a half teaspoonful of the thick, tenacious part of the white of an egg, place the powder on it carefully, and cover it up with another drop, so as to envelop the powder entirely, without letting it come in contact with the sides or bottom of the spoon. If carefully done, it can be most satisfactorily given. Assure the child, if it be a child, that the dose is not bitter; get its confidence if you can, and you will be surprised and gratified at the ease with which it is swallowed, without tasting it; and it is generally retained by the most irritable and sensitive stomach.

There is another positive advantage of this mode of administration over any yet proposed, in addition to the admirable property just mentioned: Being pure albumen, and therefore easily digested and highly nutritious, it is admirably adapted to the condition just mentioned, where there is a positive loathing of food, and the stomach refuses almost anything put into it. We believe it possesses antiemetic properties, being cooling and soothing to the congested mucous membrane, and acting as we believe mucilaginous substances do, in similar conditions. No doubt many are familiar with this plan: nevertheless, there are doubtless many, also, who are not. At any rate, those of our readers who have never tried it, are recommended to do so; and we believe they will never have occasion to regret it. It is infinitely superior to any method ever practiced by ourselves, and we feel that we would as soon

be without the resource of quinine itself, as without this means of giving it to sick children.—*Texas Courier-Record*, March, 1884.

The Seasons of the Year and the Prevalence of Acute Rheumatism.—Dr. Henry S. Gabbett thus concludes a paper on this subject in the *Lancet:* 1. The disease is neither most prevalent in the coldest months of the year, nor least prevalent in the warmest. 2. It does not occur with greatest frequency in those months in which the daily variations of temperature are greatest. 3. Although there is a certain correspondence between the rainy periods and the times when rheumatism is common, this is not close enough to point to any necessary connection. But cases of the disease are very numerous at that period of the year during which there is usually a coexistence of low temperature and heavy rainfall, viz., the end of autumn. 4. Acute rheumatism has an annual period of prevalence extending over the eight months from June to January inclusive; as a rule, it is not common in February, March, April and May. 5. The rheumatic period seems to divide itself naturally into three parts: a summer part from June to August, containing comparatively few cases: an autumn part from September to November, containing a large number: and two winter months, December and January, in which the number sinks again. 6. Acute rheumatism is most prevalent in the months of October and November.—*Medical & Surgical Reporter—Medical Digest.*

Gonorrhœa is one of those common disorders which often proves rebellious to the most approved treatment, and many are the methods which have been devised to arrive at some satisfactory solution of the problem. Dr. E. L. Keyes has recorded a number of experiments made by him with recently recommended remedies (Jour. of Cut. and Venereal Dis.) Hot water irrigation is one of these methods, and although highly recommended by Dr. Curtis and well spoken of by Dr. Otis, in the author's hands it was very unsatisfactory. Iodoform bougies have failed him totally, but have done no harm; whilst corrosive sublimate injections were found to be too strong for frequent use in virgin cases even when only used with a strength of one in two thousand. Good results have followed in cases of spurious gonorrhœa. When reduced to one-sixth grain in

the ounce and injected three or four times a day, it did not succeed in aborting a single case of gonorrhœa out of several in which it was tried. The temporary conclusions of Dr. Keyes, based on the imperfect data he has obtained are: 1st. A mild bichloride of mercury solution irritates the mucous membrane of the urethra more than it seems to irritate an open wound. 2d. It appears that an abortive treatment of the gonorrhœa is yet to be discovered. 3d. The hot water treatment of gonorrhœa is unreliable. —*Weekly Med. Review.*

Texas State Medical Association.—The next Annual Meeting of this Society will be held in Belton, Bell county, beginning at 10 A. M. on the 22nd inst., and contining four days. The Association is a large and prosperous one, numbering about four hundred members. In the circular letter, A. P. Brown, M.D., the President, says: "Many subjects of great interest will be presented and discussed, the unprecedented interest manifested throughout the State in the formation of Medical Societies, and the advancement of Medical Science and Surgical Art, warrants me in assuring you that the sixteenth convocation of our Association will surpass any other that has preceded it. Every graduate of an accredited school endorsed by the American Medical Association, may become a member by exhibiting his diploma and making written application through the Judicial Council." The Committee of Arrangements say: "Ample arrangements will be made for all," and that they "will see that every physician is provided for with a comfortable home free of cost. The wives and daughters of all attending physicians are most respectfully and cordially invited to be present. A committee will be present at each depot, to meet and receive the physicians and their families and escort them to places provided.—*Mississippi Valley Medical Monthly.*

A few days ago a patient was admitted to the Lariboisière Hospital with a piece of cord, a yard long, projecting from his mouth. He had recently quitted the Beaujon Hospital, and it is supposed that, under the influence of a feverish condition, he attempted to hang himself, but being surprised when he was arranging the cord, he swallowed it in order that it should not be seen. The cord was successfully removed, and the patient was restored to his

family. "*L'homme à la cord*" now ranks with *l'homme à la fourchette* and *l'homme à la cuillière*, who were successfully operated on by M. Léon Labbé.

The Virus of Hydrophobia.—M. Pasteur made an interesting communication to the Paris Academy of Sciences, on February 26th, in relation to canine madness. He stated that the disease could be communicated to a dog by inoculation with fragments of marrow or of nerve taken from a mad-dog. He also stated that he had rendered twenty dogs proof against the disease by inoculating them with a modified virus.

An Interesting Tree.—At a recent meeting of the Berlin Medical Society, Prof. Virchow showed photographs of a gigantic plane-tree in the island of Cos, under the shade of which Hippocrates is said, by tradition, to have held medical consultations. The tree now stands in the market-place of the town of Cos, on the east side of the island. The branches, which spread over nearly of the whole market-place, are supported by marble pillars.

The following class-room notes from the *College and Clinical Record* will doubtless be of interest to our readers:

Prof. Gross is very certain that syphilis may be transmitted from father to ovum during conception, without maternal infection.

Prof. Parvin agrees with the French law, and told the Class that in court it is well to say that a child born within two hundred days after marriage, or over three hundred days after the husband's death, is illegitimate.

Prof. DaCosta has found thymol to be as effective and less disagreeable than carbolic acid, as an antipyretic in typhoid fever. The dose is ½ to 2 grains, preferably in solution.

Prof. Bartholow highly recommends tincture of benzoin for chilblains. The part is to be well washed with soap and afterwards with clear water, and thoroughly dried. Then the remedy, dissolved in glycerine, is applied.

Prof. Gross says iodoform prevents granulation in all ulcers, and does no good in chanchroid except to relieve pain, and even in this latter case he prefers a solution of chloral, gr.iij to the ounce of water.

Prof. Da Costa considers the salicylates are not nearly as effective as salicylic acid in the treatment of rheumatism. If it does not do good in three or four days it becomes risky, and the plan of treatment should be changed.

Prof. Da Costa teaches that Addison's disease is not any indefinite affection of the supra-renal capsules, but a certain pathological process in them—a low grade of inflammation leading to cheesy degeneration. He, personally, has had best results from treatment with arsenic and cod-liver oil.

We hope that our Louisiana readers will not forget that the meeting of the State Medical Society is fast approach- (May 21), and that but little time is left for the preparation of interesting and valuable papers. Business of the greatest importance to the Medical Profession in this State, will be transacted at this meeting, but in order to do the work effectively the Society needs not only the faithful co-operation of all its members, but of all the physicians of Louisiana besides. Several papers have already been promised by leading members, but they are not sufficient; more are needed to give a fair representation of country talent and ability. It must not be forgotten, either, that the meeting is to be held in Baton Rouge in time for the session of the Legislature, and therefore, a most favorable opportunity for us to press our needs into the minds of our Legislators. Rally then, and hie ye to the trysting place!

COMMENCEMENT DAY.

GRADUATION EXERCISES OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISIANA.

On Saturday, March 22d, 1884, the French Opera-House presented, about noon, a most brilliant appearance, on the occasion of the graduation of the Class of 1884 in Medicine. It was the fiftieth anniversary of the Medical Department of the University of Louisiana, and the scenes at the conferring of the degrees were most impressive.

Punctually to the hour a select orchestra began the exercises, with Suppe's delightful "Poet and Peasant," at the

conclusion of which an earnest prayer was offered by Rev. Henry H. Waters.

The President of the University, Hon. Randell Hunt, LL. D., then in an impressive and eloquent manner conferred the degree of Doctor of Medicine on the following gentlemen, the entire class rising:

GRADUATES OF MEDICINE.

Alabama.—James R. Coats, Samuel P. Hand, John O. Kennedy.
Arkansas.—Hugh B. Williams.
Georgia.—Charles R. Josey,
Louisiana.—David P. Albers, Adolphe A. Aucoin, Francis N. Brian, John Callan, Peter F. Choppin, Joseph W. Day, Samuel A. Dickson, Pierre A. Dupleix, Gustavus A. Flournoy, William B. Gill, Isaiah P. Gunby, Adrian Hava, William A. Hollaway, Clifford H. Irion, James T. Jackson, Paul O. Labry, Ernest Laplace, James Leake, Robert M. Littell, Percy B. Lusk, Frank G. Marrero, William O'Donnell, W. T. O'Reilly, Robert L. Randolph, Robert L. Riley, Gabriel G. Rogers, Webster Smith, Charles S. Stewart, Baxter L. Thompson, Walter H. Thompson, Francis F. Young.
Mississippi.—William R. Greenlee, William D. McCarty, Hugh L. McLaurin, Edward E. Smiley, George A. Tennisson, John D. Walker.
New York.—Frank E. Artaud.
Texas.—Reuben B. Anderson, Wm. C. Burke, John A. Cobb, Joseph C. Colley, Charles A. Danforth, John H. Evans, Harry C. Grace, Joshua C. Jarrett, James C. Johnson, Oscar J. Kendall, William W. Lunn, William T. McNeill, Thomas F. Miles, Rufus T. Minnock, Paul M. Raysor, John A. Richardson, William H. Rush, Elijah G. Wands, William W. Wilkes.

GRADUATES IN PHARMACY.

Christy B. Diebold, August Kramer, George W. McDuff, Louis J. Mertz, Joseph S. J. Otto, George W. Schumann, Charles Seybold, Edward Viladevall, all of Louisiana.

A happy selection by the orchestra from "Olivette" followed, and then Prof. T. G. Richardson, Dean, distributed the diplomas to the graduates. At the conclusion of the distribution a committee of students commenced the arduous task of carrying up to the stage the floral tributes to the newly made doctors, while the orchestra discoursed Lang's "Flower Song." There were bouquets and bouquets, baskets of flowers, horseshoes of flowers, crowns, and in fact every conceivable emblem almost, wrought in the most delicate of roses, violets and exotics. Such was the prodigality of the lady friends of the graduates, the stage was almost carpeted with spring blossoms, and some of the gentlemen were almost knee-deep in the fragrant blooms.

As each happy graduate received these tokens of kindly feeling and well wishes the house applauded to the echo. When this rain-storm of flowers ceased, Col. Wm. Preston Johnston, President of the Tulane University, was intro-

duced, and in pregnant logic and chaste rhetoric delivered the salutatory address, choosing as his subject "The relations of the medical profession to society, and the consequent duties and obligations of its members." He spoke of the influence and power given by a diploma from such a body as the Faculty of the University of Louisiana and the occasion so momentous to the graduates.

He referred to the esteem in which the medical profession is held and has been even from the most primitive days, and the causes that led to it. He advised each to seek to rise to the high ideal of his profession, both in his life and practice. The duties before them were to master the learning which lies at the foundation of the profession; to know not only *about* things but to *do* things, and to perform that which arises from the duty of benevolence. He warned them against dangers and pointed out defects, and closed with words of excellent advice His address was marked throughout by perspicacity, strength and generous feeling, and was warmly applauded.

When Col. Johnston had concluded, the orchestra struck up Raeb's "Secret Love" Gavotte, and when the last notes of this delicious number had died away, the valedictorian of the class, Dr. Ernest Laplace, (a frequent and valued contributor to the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL), was introduced, who delivered a most impressive and graceful address on the "Physician of the Future." He began by stating that—

> In the practice of some of the ancient universities of Continental Europe it was the custom to present the medical graduate on the day on which he obtained his doctorship with a ring, a barette, an open and a shut book. The ring betokened the solemn espousal of the young graduate to the medical profession. The barette indicated that he was at the same time set apart and consecrated as a priest to science. The open book was given as an emblem of things already taught him, while the more significant closed volume with which he was presented was meant to typify that far longer and greater extent of professional knowledge which it was yet the study and business of his life to acquire.
>
> While our college has not followed this ancient example, still it has with equal solemnity embodied the custom in giving to the sacred keeping of each of us a parchment certificate entitling us, with the knowledge here acquired, to diagnose and treat the many ills which afflict the human race. In it is also embodied the book of unscanned knowledge, which the faculty hopes we will constantly keep before us, learning its contents. This is the knowledge we should covet most; it will not be ephemeral, but, born in the sanctuary of our own minds, it will dwell there, treasured up in its most favorable habitat, ever in readiness, a guiding spirit in our professional life. It is this knowledge, based on the results of experimental and scientific research, which will characterize that most admirable figure among men—the Physician of the Future.

While on his subject proper, he said:

The astonishing age in which we make our professional debut in the arena of professional life should make the *physician of the future* essentially a scientific man.

His is the study of man, "fearfully and wonderfully made." He sees that disease is but a step from health and but a step to the grave, so that unless his mind has quaffed deep draughts from the fount of knowledge his efforts may be set at naught. For to-day's science regenerates the world and elevates man over the pettiness of every day existence. The geologist diving into the very bowels of the earth and describing the various strata composing it, has surely a better conception of the formation of the world, and the eternal forces that have produced it, than ever philosopher of old. The physiologist studying the mysteries of the human form finds more wonders in the body of man than the greatest of Grecian sculptors dreamed of. The chemist, subjecting all matter to the test of the crucible, sees all forms crystalized into being by the eternal chemistry of God. Spectrum analysis promises to reveal things as yet unrecognizable, while the anatomist and pathologist, microscope in hand, wait upon nature at her very fountain head and gaze, as it were, upon formative creation. Such is the impetus of science, and a near future will rank the physician as a leader in the development of the human mind.

He will entertain always an exalted view of his profession, remembering that ill-gotten fame and false glitter fade before the first rays of the living truth, and, like the fabled echo, die away into empty sound. Deeply impressed with the grand truths which form the foundation of the Temple of Medicine, he will ever keep aloof from the alluring path that slopes to homœopathy and the various other "pathies" of the day, for these will soon die as they have risen, and scientific medicine will be their undertaker and sing pæans of victory over their graves.

After paying a handsome tribute to the ladies, and thanking the Faculty for their teachings and admonitions, and after referring in grateful and elegant terms to the excellence of the medical education obtained through the combined teachings of the University and Charity Hospital, he proceeded with the following valedictory:

Fellow graduates, the world flatters and fawns upon successful men in every honorable, and, I am sorry to say, some of the dishonorable callings in life. No one finds it difficult to secure recognition and friendly regard after success has been won; but, as you know, the road to success is a hard one, accompanied by many heart-burnings and discouragements. But, after all, we are told by those who have struggled and fought and finally conquered, that victory is glorious and well worth the price it has cost: so that now, with the rich stores of knowledge at our command, we must labor diligently and unremittingly, bearing in mind what one of the greatest physicians of this century has declared, that with the necessary exertion the lowest among us are certain to rise; without it, the highest among us are just as certain to fall.

Toward one another let there be only such rivalry as to who can best discharge his duty to himself, the profession and humanity.

Philanthropy and charity, "earth's link to heaven," must be our predominant characteristics, though we may often meet with the sore experience that

> "God and the doctor we alike adore;
> Only in danger, not before.
> The danger over, both alike are requited—
> God is forgotten, and the doctor is slighted."

Thus it is, gentlemen, and more especially those among you who are members of the graduating class and about to embark on the practice of your profession. I would see you climb step by step through the crowded and envious pathway of life, to the "top," where, according to Webster,

there is plenty of room, and where fortune, name and fame await you. Thus it is, I would have you, all of you if possible, by that same and only true process, work your way to that purer and more cultured atmosphere nearer the top. Thus it will be, when the individual members take rank; they will recollect the happy scenes of their first labors in medicine—our *Alma Mater*. I would see her, famous by the borrowed fame of her *alumni*. I would see them, banded firmly together, working ardently and constantly for the advancement of medical science, their own interests and the continued welfare and prosperity of our parent college.

It only remains now, gentlemen, for me to wish you God-speed in your entrance upon professional life, and bid the best wishes of my heart, to wish you a final—

> "Farewell! a word that must be, and hath been,
> A sound which makes us linger—yet, farewell!"

When Dr. Laplace had ended, he was greeted with enthusiastic applause, and scores of bouquets were sent up to him.

To the air of "Home, Sweet Home," the faculty, followed by the students, marched out, and ceremonies were over.

There were present on the stage the Faculty, the Mayor, Board of Administrators, several judges and other prominent gentlemen.

To the following committees is due much credit for the success of all the arrangements:

Executive Committee.—Frank E. Artand, R. S., chairman: Arthur A. Allain, R. S., R. M. Littell, R. S., P. E. Choppin, M. M. Lowe, J. A. Cobb, W. H. Holloway, W. A. Duringer, R. S., R. M. Razor, T. T. Erwin, R. L. Riley, R. S., W. B. Gill, J. A. Richardson, F. F. Young.

Committee of Invitation.—H. B. Williams, R. S., chairman; A. A. Aucoin, W. L. Finney, W. C. Bendy, H. Haywood, John Callan, R. S., F. J. Kearney, H. Chancere, James Leake, R., S., J. N. Charbonet, C. P. Lowe, R. S., W. R. Greenlee, H. S. Oliphant, R. S., Chas. L. Seemann, R. S.

Committee of Reception.—A. J. Meyer, chairman; W. C. Barber, W. S. Bickham, H. W. Blanc, R. S., A. R. Mattingly, J. A. Claverie, A. G. Maylie, B. A. Colomb, R. S., P. B. Lusk, W. Hardan, L. G. Lebeuf, E. Van Benthuysen.

Publications Received.

The Reciprocal Attitude of the Medical Professsion and the Community. By Alex. Hutchins, A. M., M. D., Brooklyn, N. Y.

Opera Minora: A collection of Essays, Articles, Lectures and Addresses from 1860 to 1882 inclusive. By Edward C. Seguin, M. D., Clinical

Professor of Diseases of the Nervous System in the College of Physicians and Surgeons, New York, etc. New York: G. P. Putnam's Sons, 21 and 29 West 23d Street. 1884.

The Confederate Debt and Private Southern Debts. By J. Barr Robertson. London: Barlow & Sons, 95 and 96 London Wall.

Arrest of Development Caused by Intra-Uterine Pressure. By H. F. Hendrix, M. D. Reprinted from the *St. Louis Medical and Surgical Journal.*

Proceedings of the Naval Medical Society. Vol. 1, No. 6.

Transactions of the American Opthalmological Society, 29th Annual Meeting, Catskill Mountains, 1883. New York: Published by the Society.

Use of the Peroxide of Hydrogen in Diphtheria. By R. J. Nunn, M. D., Savannah, G. New York: 1884.

Transactions of the Massachusetts Medico-Legal Society, Vol. 1, No. 6. 1884.

Annual Report of the Presbyterian Eye, Ear and Throat Charity Hospital, Baltimore, Md., 1883.

New York State Medical Association. Founded February, 1884. Minutes of a Convention held in the city of Albany, February 4th and 6th, 1884, at which the [orthodox "Code" Party] New York State Medical Association was organized on a permanent basis.

Sarcoma Cistico del Testiculo Derecho por Jose Armangue y Carreras-Sola. (Trabajo del Laboratorio del Dr. Carreras-Arago.) Barcelona, 1884.

Galvanic Batteries in Medicine, with Description of a New Selector. By Drs. Julius Rudisch and Geo. W. Jacoby. Reprint from the *Journal of Nervous and Mental Diseases,* Vol xi, No. 1, January, 1884.

Illustrations of the Influence of the Mind upon the Body in Health and Diseases, designed to Elucidate the Action of the Imagination. By Daniel Hack Tuke, M. D., F. R. C. P., LL. D. Second American from the Second English Edition. Philadelphia: Henry C. Lea's Son & Co. 1884.

A Manual of Obstetrics. By A. F. A. King, M. D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., etc. With fifty-nine Illustrations. Second Edition. Philadelphia: Henry C. Lea's Son & Co. 1884.

Practical Pathology. A Manual for Students and Practitioners. By G. Sims Woodhead, M. D., F. R. C. P. E., Demonstrator of Pathology in the University of Edinburgh, etc. With one hundred and thirty-six colored plates. Philadelphia: Henry C. Lea's Son & Co. 1884.

NECROLOGICAL.

Dr. Lunsford Pitts Yandell, of Louisville, Kentucky, died suddenly, from angina pectoris, at his home, on the 12th of March, at the age of forty-seven years. Dr. Yandell was born on the 6th of June, 1837, in Craggy Bluff, Rutherford county, Tennessee. He was graduated in medicine, from the University of Louisville, in 1857. In 1869 he was called to the chair of Materia Medica and Therapeutics and Clinical Medicine, in the University from which he had graduated twelve years before. This place he held until two years since, when he was appointed to the chair of Theory and Practice of Medicine, which he held up to the time of his death. He was physician to the City Hospital and senior editor of the Louisville Medical News, and a prominent member of many medical and scientific societies. Dr. Yandell was eminently distinguished as a journalist, lecturer and practitioner. His death was rightly regarded "as a public calamity in Louisville," as was attested by the immense concourse of people who thronged to pay a last tribute to his remains.

METEOROLOGICAL SUMMARY—FEBRUARY. STATION—NEW ORLEANS.

DATE.	Daily Mean Barometer.	Daily Mean Temp'rature	Daily Max. Temp'rature	Daily Min. Temp'rature	Daily Rain-fall, inches.
1	30.089	65.5	69.8	61.0	.05
2	30.117	65.7	72.0	61.0	....
3	30.160	67.6	74.0	59.0	....
4	30.106	67.1	75.0	58.0	....
5	29.986	67.9	75.0	59.2	....
6	29.945	71.2	76.0	64.0	....
7	30.655	72.1	77.0	66.2	.01
8	30.155	71.4	77.1	66.2	....
9	30.212	69.8	77.0	62.5	....
10	30.211	69.6	76.5	62.6	...
11	30.139	68.9	74.7	60.0	....
12	29.960	67.7	77.0	60.7	.31
13	29.885	67.4	76.7	57.5	.40
14	30.201	45.8	62.0	42.5	....
15	30.316	44.2	52.9	32.7	....
16	30.035	54.6	60.0	44.2	1.57
17	29.951	59.9	68.5	50.4	....
18	29.960	62.6	71.0	53.8	....
19	30.000	67.1	76.3	57.0	....
20	30.329	47.1	57.5	38.7	....
21	30.229	54.2	63.0	43.7	....
22	30.109	58.6	69.7	52.7	.72
23	30.240	50.9	58.7	45.1	....
24	30.134	55.9	64.0	44.5	....
25	30.138	58.5	67.0	48.9	....
26	30.046	62.2	70.5	53.0	....
27	29.866	59.0	73.0	49.6	.10
28	30.136	43.3	49.6	36.3	...
29	30.176	44.3	52.0	34.0	....
	.....	....	....	....	....
	.....	....	....	....	....
Sums	.....	....	....	....	3.16
Means	30.100	60.7	68.7	52.6	....

GENERAL ITEMS.

Highest Barometer, 30.436. 20th.
Lowest Barometer, 29.727. 27th.
Monthly Range of Barometer, 00.709.
Highest Temperature, 77.1. 8th.
Lowest Temperature, 32.7. 15th
Greatest daily range of Tempert'e, 23.4.
Least daily range of Temperature, 8.8.
Mean daily range of Temperature, 16.2.
Mean Daily Dew-point, 50.0
Mean Daily Relative Humidity, 70.5.
Prevailing Direction of Wind, N.
Total Movement of Wind, 5400 Miles.
Highest Velocity of Wind and Direction, 34 Miles, N.
No. of foggy days, 0.
No. of clear days, 11.
No. of fair days, 12.
No. of cloudy days, 6.
No. of days on which rain fell, 10.
Dates of frosts, 15th.

COMPARATIVE TEMPERATURE.

1873	60.5	1879	55.8
1874	59.1	1880	60.4
1875	55.9	1881	56.3
1876	59.0	1882	66.9
1877	55.9	1883	62.9
1878	55.8	1884	

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	1.93	1879	2.13
1874	3.68	1880	4.62
1875	13.85	1881	5.80
1876	8.20	1882	4.04
1877	.98	1883	1.59
1878	3.50	1884	

M. HERMAN, *Corp'l Signal Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM FEBRUARY 24TH, 1884, TO MARCH 22D, 1884, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia	Total Mortality.
March 1	0	4	20	3	7	115
March 8	0	14	23	10	11	151
March 15	0	3	23	16	12	148
March 22	0	4	19	13	16	141
Total	0	25	85	42	46	555

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ORIGINAL PAPERS.

Odds and Ends of Materia Medica.

[Read before the New Orleans Medical and Surgical Association.]

By SIMON G. GILL, M. D.

MR. PRESIDENT AND GENTLEMEN:

According to the regulations of this society, it has become my duty to carry my coals to Newcastle to-night. I have neither discovered any new vein of coal nor any unknown variety thereof, but have only picked up some few lumps, accidentally come across, so that I only furnish the basket wherein I bring them, to use Lady Mary Wortley Montague's simile, slightly altered. You are, undoubtedly, already acquainted with most, if not all of them: in mitigation I will plead that some may bear repeated inspections. I have chosen as my subject to-night "Materia Medica," and with your leave propose to enumerate some remedies taken from the animal kingdom that were formerly in vogue for the healing of the sick or preserving the health of those that were well.

When disease was first discovered, by a remarkable coincidence, as Sam Weller, the elder, would say, the desire to get well simultaneously made itself felt. When, for instance, Mrs. Cain, Father Adam's daughter-in-law, felt unwell, she would undoubtedly seek some quiet place, shel-

tered from sun and rain, and lie down: next, no matter what hunger may be, pain is not a good cook—therefore, while sick, she would not take her usual amount of nourishment. Here, then, we have already two great factors in the healing art: Quiet and Diet; besides, she had, no doubt, fresh air—in other words, comparatively good hygienic surroundings. The mode of treatment was, beyond doubt, on the expectant plan; or, if you choose, she followed exactly the modern homœopathic treatment, minus the sugar of milk pellets; but that difference is so slight that we can affirmatively assert that homœopathy—practically at least, if not theoretically—was first practised: that homœopathy is the orthodox practice, while we are dissenters.

As time rolled on experience soon taught that this treatment was not always as successful as might be wished, and here arises a question: Did mankind learn from animals that herbs possess healing qualities, as has been asserted by ancient authors? Aristotle, in his History of Animals, tells us that tortoises eat origanum to counteract the effects of snakebites; that weasels eat rue for the same purpose, while the dragon uses the juice of the wild endive as an emetic; and Olian as well as Plutarch bears him out in all three assertions. Plutarch, in his treatise on Isis and Osiris, infoms us that the Egyptians worship the ibis, because the bird first taught mankind the medicinal use of enemas, as, he says, this bird gives itself an injection of salt water through its long bill in order to relieve constipation. Pliny tells us that deer, when struck with arrows, will eat dittany, when the arrows will drop out: that they also eat crabs when bitten by venemous insects; that swallows use chelidony to cure weak eyes in their young, while snakes use fennel for the same purpose; that the stork cures itself with majoram, the wild boar with ivy, the elephant with wild olive, woodpigeons, jackdaws, blackbirds and partridges purge themselves once a year by eating bay-leaves, ducks and geese with verrain, cranes with bulrushes, while the panther, when poisoned by the hunter

with aconite, has found an antidote in human excrements. The same author repeatedly asserts that the hippopotamus, when unwell, will open a vein by rubbing against the sharp edges of a broken reed; in fact, he styles this animal "the discoverer of phlebotomy," with many more instances of a similar nature.

Be this as it may, whether man was first taught the healing art by animals or not, one thing is certain, and that is, that only simple herbs were first used, while man relied only upon experience to teach him the good or bad effects of any given remedy: in other words, we have our eclectic brethren next in antiquity to the homœopath.

The next step in medical practice we have any authentic proof of we find in the Books of Moses. That inspired author tells us in Genesis, chapter 1st, that Jacob, the patriarch, was embalmed after his death "by his physicians," and in the thirteenth chapter of the Exodus we find the following injunction: "And thou shalt make it a perfume, a confection, after the art of the apothecary." Thus you see Moses was both acquainted with doctors and druggists. Nevertheless, in his third book, the "Leviticus," he invariably and frequently orders the use of water as a curative and prophylactic remedy—water, and nothing but water in any of his writings; in other words, gentleman, we can safely say that Moses is the father of our modern hydropaths.

Even at this period, about sixteen hundred years before the birth of Christ, the Egyptians had already reached a comparatively high state of culture, and we learn from Strabo and Herodotus that these ancient people used to expose their sick in the public places, so that those of the passers by, who had been similarly afflicted and cured, could give the sufferers the benefit of their advice.

Gentlemen, as you see, our great competitor—"the old woman"—was already then in full practice, and all these intervening centuries seem to have added absolutely nothing, either to the store of her wisdom or the number of her years.

Now, having shown beyond cavil the high antiquity of these our professional confreres—the homœopath, the hydropath, the eclectic and the wise woman—when do we come? Who was the first allopath? Why, there can be no doubt about that; it was none less than the wisest man earth ever saw—a "prince among physicians and a physician among princes"—King Solomon, the son of David. "He spoke 500 proverbs and his songs were 3000. He spoke of plants from the Cedar of Lebanon, even unto the hysop that springeth out of the wall; he spoke also of beast and of fowl and of fishes and of creeping things." The historian, Josephus, adds: that "God gave to this prince a perfect knowledge of the properties of the productions of nature, and that he availed himself of it to compound remedies extremely useful in distempers, some of which had even the virtue to cast out devils." You see Solomon did not cast the devil out by a witch, but he cast him out with drugs—thus plainly do we see the waiving banners of the Hebrew king inscribed with the letters C. C. C., while the mighty shout of his victorious hosts in triumph comes sounding down the ages:

"*Contraria Contrariis Curantur.*"

That is, provided Solomon found it necessary to discard his mother tongue and adopt a Latin motto. Still, as we have no medical work extant written by Solomon, and actuated by our usual modesty, we only trace our professional lineage to the philosopher of Cos, although, when Hippocrates wrote, Solomon had already slept with his fathers some 600 years.

Thus have we traced the progress of the healing art through 4000 years, showing at last the birth of our own beloved allopathy, as well as the beginning of our four great antipathies. Let us now take a look at the materia medica at the beginning of our present era—our future era, too, for that matter. What do they use now to cure their sick?

Aretæus, Celsus, Dioscorides, Galen and Pliny will tell us; here is a partial list of their drugs:

Ashes of frogs, weasels, crabs, lizzards and salamanders.

Brain of vulture, hare, cock, camel, weasel, sheep and swallow.

Belly of cormorant, chicken, pigeon, goat and weasel.

Blood of hog, swallow, pigeon, dove, owl, bat, frog, kid, chamæleon, goat, chicken, cock, bear, deer, bull, duck, crocodile, stallion and stag, as well as blood from a man recently slaughtered, or the warm blood of a gladiator.

Bone—The anklebone of a sow, anklebone of an ox, the bone in the heart of a stag as well as human bones.

Excrements of wolf, dog, goat, sheep, cow, ox, pigeon, deer, bat, stork, mouse, starling, crocodile and lizzard.

Fat of fox, hog, goat, goose, cock, hen, lion, ox, bear, cat and viper, as well as human fat.

Flesh of frog, young swallow, sparrow, lark, viper, lizzard, snail, spider, caterpillar, crab, maggot, bugs, earthworms, stork, starling and quail.

Gall of ox, bull, swine, sheep, goat, scorpion, hen, cock, tortoise, partridge, hawk, eagle, calf, bear and fishes.

Lungs of lamb, swine, goat and fox.

Heads of herring, anchovis, mouse, hawk and lizzard.

Milk of camel, mare, ass, goat, sheep, cow and woman.

Rennet of hare, horse, seal, kid, antelope, camel and rabbit.

Eggs of pigeons, doves and tortoises.

Urine of goat, swine, camel, mule, ass, tortoise. man and boy.

Testicle of stag, hippopotamus and beaver.

Penis of ferret, hoof of elephant, fur of rabbit, horn of unicorn, spawn of frog, human sweat and saliva, live electric eels, besides many other rare and valuable drugs too numerous to mention, as the auctioneer would say.

Dioscorides alone mentions in his work on materia medica no less than 168 animal substances, the most celebrated of which, and the one that held its own longest in the love and esteem of physician and patient alike, is probably that

celebrated remedy the "Gracum Album," or the dried white excrement of the dog.

So you see even if animals first taught mankind the use of physic, mankind soon retaliated by using animals as physic.

In addition to these, the Arab physicians added from the animal kingdom ambergris, musk and pearl. In the Koran we find that Mahomet, the prophet, at least once, dabbled in medicine. He prescribed honey for a case of colic. The patient, returning, said it did him no good Mahomet answered, "Take more honey; I speak the truth: your belly lies; honey cures colic, and Allah is great!" That settled it. Even earlier than this we find, in addition to the above enumerated dainties, the use of exorcisms or incantations. Ætius, for instance, who lived in the latter part of the fifth century, recommends that to extract a bone from the throat the following words be pronounced: "Bone, as Jesus Christ caused Lazarus to come forth from the sepulchre, as Jonah came out of the whale's belly, come out of the throat," or in this form, "Bone, I conjure you by Blaises, martyr and servant of Jesus Christ, come forth, or go down." The use of charms and amulets to cure diseases was common among the early Christians. Epilepsy was to be cured by wearing a ring, in which a portion of an elk's horn was enclosed: while the hoof an ass, worn the same way, had the reputation of preventing conjugal debility. St. Chrysostom, as well as St. Basil and Epiphantus, however, thundered against the use of amulets and charms; and as these remedies would be more properly placed under the heading "Magic," than "Materia Medica," and as volumes may be and have been written on that subject, I will pass them over. Paul, of Ægina, lived in the latter part of the sixth century. He, like his predecessors, is still full of these animal substances. About the year 1300 Marco Polo, the celebrated traveller, in speaking about Eastern medical practice, says: "They immediately secure the gall of the alligator, which is most highly esteemed in medicine. In cases of the bite

of a mad dog, a penny-weight of it, dissolved in wine, is administered. It is also useful in accelerating parturition when the labor-pains of women come on; it also disperses carbuncles, pustules, and other eruptions of the body, and it is efficacious in many other complaints."

In the beginning of the sixteenth century we come across Paracelsus. Regarding him, let me quote Dr. Thomas Browne, the author of "Inquiries into Vulgar Errors," printed Anno 1646. These are his words: "Paracelsus divideth the body of man according to the cardinale points of the world, and therefore working upon human ordure, and by long preparation rendering it odoriferous; he terms it Zibeta Occidentalis—Western Civet, making the face the East, but the posteriors the America or western part of his microcosm." It is not against nature, Paracelsus contends, that we should live to the renovation of all things; it is only against our experience, and beyond our present knowledge.

Here is a little gem from Rabelais (apparently the middle of the 16th century). He says: "Nay, with the very dung of these sheep, (with reverence be it spoken) the doctors in our country make pills, that cure 78 kinds of diseases, the least of which is the evil of St. Eutropius, from which, good Lord, deliver us!"

Montaigne, in 1580, with his usual dislike to doctors and aversion to drugs, says: "Nay, even the choice of most of their drugs is in some sort mysterious and quackish. The left foot of a tortoise, the urine of a lizzard, the dung of an elephant, the liver of a mole, blood drawn from under the wing of a white pigeon; and for us who have the stone (so scornfully do they use us in our miseries) that excrements of rats beaten to powder and such like asses tricks, which rather carry a face of magical enchantment than any solid science."

The aforementioned Thomas Browne, Doctor of Physic, seems to have been a veritable doubting Thomas of his day, stating, as he does, that "hee is ofttimes faine to wander in the America or untravelled parts of truth."

Thus he asks: "What wise man would rely upon that antidote delivered by Pierius, in his hyeroglyphicks, against the sting of a scorpion? that is to sit upon an asse, with one's face toward his taile; for so the paine from its sting leaveth the man and passeth into the beast. It were, methinks, but an incomplete receite for a Quartan Ague, and yet as good, perhaps, as many others used, to have recourse unto the remedy of Sammonicus; that is, to lay the fourth book of Homer's Iliads under one's head. There are surely few that have beliefe to swallow, or hope enough to experiment, the collyrium of Albertus, which promiseth a strange effect, and such as thieves would count inesteemable; that is, to make one see in the darke, yet this much, according to his receite, will the right eye of an hedge-hog, boyled in oyle and preserved in a brazen vessell effect. As strange as it is, and unto vicious inclinations were worth a night's lodging with Lais; what is delivered in Kiranides, that the left stone of a weesell, wrapt up in the skin of a she-mule, is able to secure incontinency from conception."

And again, he says: "Physitions, many at least that make profession thereof, besides divers lesse discoverable wayes of fraude, have made people beleeve there is the 'book of fate,' or the power of Aaron's brest-plate in urines, and therefore, hereunto they have recourse, as unto the oracle of life, the great determinator of virginity, conception, fertilitie, and the inscrutable infirmities of the whole body. For, as though there were a seminality in urine, or that like the seed that carried with it the Idea of every part, they foolishly conceive, wee visibly behold therein the Anatomie of every particle and can thereby indigitate their affection."

Robert Burton, the scholarly author of that most curious of all curious books, "The Anatomy of Melancholy," was contemporary with Dr Thomas Browne. Permit me also to quote a few lines from him: "For approved medicine against head-melancholy take a ram's head, that never

meddled with a ewe, but off at a blow, and the horns only take away; boil it well, skin and wool together; after it is well sod, take out the brains and put these spices to it: cinnamon, nutmeg, ginger, mace and cloves, of each 1½ ounce; heat it upon a chafing dish, take heed it be not overmuch dried, or drier than a calf's brain ready to be eaten, and for 3 days give it to the patient fasting." Further on he mentions, out of Piso, a ram's lungs applied hot to the forepart of the head, or a young lamb divided in the back and exenterated, and so forth. "How many things," he says, "are related of a man's skull; what several virtues of corns on a horse's leg, of a wolf's liver, of divers excrements of beasts, all good against several diseases." And again: "A sheep or a kid's skin, whom a wolf worried, ought not at all to be worn about a man, because it causeth palpitation of the heart; not for any fear, but a secret virtue which amulets have, a ring made of the hoof of an asse's right forefoot carried about, etc. I will say with Renodeus, they are not altogether to be rejected. A wolf's dung borne with one helps the colic, spider an ague, and so forth. Being in the country in the vacation time, many years since, at Lindley, in Leicestershire, my father's house, I first observed this amulet of a spider in a nutshell, lapped in silk, so applied for an ague by my mother, whom although I knew to have excellent skill in chirurgery, sore eyes, aches, and such experimental medicines, as all the country, where she dwelt, can witness to have done many famous and good cures upon divers poor folks, that were otherwise destitute of help, yet among all other experiments this methought was most absurd and ridiculous. I could see no warrant for it. 'What has the spider got to do with the fever?' till at length rambling amongst authors, as I often do, I found this very medicine in Dioscorides, approved by Matthiolus, repeated by Alderovandus; I began to have a better opinion of it, and to give more credit to amulets." Burton again quotes Cardan and Mizaldus: "To anoint the soles of the feet with the fat of a dormouse, and the teeth with

the earwax of a dog, and so forth." And he adds, that "there was of old no use of physic among us, and but little at this day, except it be for a few nice idle citizens, surfeiting courtiers and stall-fed gentlemen lubbers; the country people use kitche-physic."

With your leave I will read a few extracts from two known medical authors of that day. I refer to Lazarus Riverius, anno 1657, counsellor and physician to King Louis IV of France, and Richard Wiseman, serjeant-chirurgeon to his most sacred Majesty, King Charles the II of England, and when we consider that in those days majesty was written with seven capital letters, we can rest assured that the authors mentioned were on the top round of the medical ladder to fame.

For a swelling of the hand, Wiseman puts it into a beast's belly, or he bathes it with his patient's own urine; warts he rubs with garden snails, or with a piece of raw meat, and then buries the meat, when both wart and meat will decay simultaneously; he uses broth of the heads of sheep as purgative enema, the blood of swine for cancer, blood of doves and pigeons as vulnerary balsam, as well as eye lotion. Another vulnerary balsam he prepares by boiling two new-whelpt puppies in six pints of oil, until the flesh falls from the bones, then adding one pint of tincture of earthworms. Of solid excrements the serjeant-chirurgeon uses that of pigeons in plasters and poultices; that of horses, after frying in oil, as dressing for gunshot wounds: of the different fats, he uses human fat as well as that from cow, calf, goose, deer, sheep and chicken. Another cancer cure of his is the oil of frogs made by baking the frogs with butter in their mouths: he also uses the spawn of frogs, as well as boiled tripe, as a curative remedy in the same disease. The fur of rabbits he uses as a styptic; an infusion of 1000 wood-lice as a remedy against scrofula; human milk as an eye-lotion, and buttermilk as a dressing for wounds.

Of animal substances Riverius uses the following: Blood of goats or lice of hogs as a diuretic or stone-

breaking medicament; the blood out of the great wing-feathers of doves as an eye-lotion, as well as milk from women, asses and goats; crabs, lobsters, and fox lungs as pectorals; the testicles of a cock with the brain of a sparrow as an aphrodisiac. The decoction of an old rooster for "chronical diseases, as hypochondriacal melancholy, asthmas and diurnal obstructions." He particularly enjoins that the aforementioned old cock must be worried with blows and running before being disembowelled. Live puppies, split open in the back, he applies as a digestive to inflamed joints; for the same purpose he also uses the excrements of cows and sheep, while he puts those of goats, cocks and pigeons into plasters; with the fat of deer, calf, hog, hare, capon and goose, he uses the gall of different fishes, birds and beasts as purgatives; fur of rabbit as styptic, the horn of the unicorn and the horn in the heart of a stag as cordial medicaments; milk from sheep and goats, as well as a decoction of a castrated ram's head and guts as sedative enemas, while he makes plasters of mummies—and let me add, the mummy of a virgin was considered the best kind of mummy.

The royal touch was another means of healing the sick. Plutarch, in his life of Pyrrhus, says: "It was believed that Pyrrhus cured the disease of the spleen by gently pressing with his right foot against the part affected, the patients lying upon their backs for that purpose. There was no person, however poor or mean, refused this relief, if requested."

Tacitus tells us that a poor man had a film or cataract of both eyes, rendering him blind. Vespasian moistened his eyes with his imperial spittle and the patient instantly recovered his eyesight. Another, whose hand was paralyzed, begged Vespasian would tread on the part affected, which he did, and the paralytic member instantly recovered its function. Suetonius, however, says it was a paralyzed leg that Vespasian cured. Spartianus, who wrote the lives of Adrian and succeeding emperors, gives an account of a similar wonderful cure performed by that prince

in healing a blind man. Clovis, of France, touched for scrofula, or the king's evil, in the year 480; Louis the First A. D. 814; Francis the First A. D. 1527. On Easter Sunday, 1866, Louis XIV touched sixteen hundred persons.

In England this disease was first touched for by Edward the Confessor A. D. 1058. Andrew Borde wrote in the reign of Henry the Eighth: "The kynges of England, by the power that GOD hath gyven to them, doth make sycke men whole of a syckness called the kynge's evyll."

Charles the Second issued an order of ceremony of touching for the evil, anno 1683. During fourteen years this prince touched 92,107 persons, who, according to Wiseman, were all cured. Queen Anne officially announced in the London *Gazette*, March 12, 1712, her royal intention to touch publicly for the cure of the evil. Dr. Johnson was touched by her. The custom was discouraged and dropped by George the First, anno 1714; however, Prince Charles Edward touched a female child for the disease in 1745. The practice of presenting the person touched with a piece of gold or silver coin was introduced by Henry the Seventh. This piece of money was called a touch piece.

While the kings of England and France were thus occupied, what were the German potentates doing? An Austrian historian, Chr. Besolde (1577–1638), says they were curing stuttering by kissing.

Perhaps they have retired from practice, too, by this time.

Another curious mode of treatment then in high esteem was by fontanels or issues. We find both Don Quixote and my celebrated namesake Gil Blas recommending them, while Dr. Wiseman mentions a very curious one. In speaking about a patient with fistula in ano, and an abscess in the groin, he says: "By these means the abscess in the groin healed up, and he grew more healthful and fat; but," adds Wiseman, "the fistula in ano I thought fit to continue as a fontanel for his health's sake."

As before mentioned, human bones were much esteemed as an article of materia medica, therefore those of saint and sinner were resurrected; the former were admitted into the hallowed precincts of some ancient matron's bosom, there to guard against sin and sickness and deviltry, while the bones of the sinner found their way into the apothecary shops. Here is a formula from the work of John French, Doctor in Physicke, printed in 1667:

"Take of cranium humanum as much as you please, break it into small pieces, which put into a glass retort well luted; then put a strong fire to it by degrees, continuing of it till you see no more fumes come forth, and you shall have a yellowish spirit, a red oyl and a volatile salt; take this salt and the yellow spirit and digest them by circulation two or three months in Balneo and thou shalt have a most excellent spirit. This spirit is of affinity with, if not the same, as that famous spirit of Doctor Goddard's in Holbern. It helpes the falling sickness, gout, dropsie, infirm stomach, and, indeed, strengthens all weak parts and openeth all obstructions, and is a kind of Panacea."

Strange to say, the bones of an executed criminal were considered to possess superior healing powers to the bones of ordinary dead men. The corresponding bones of the part affected were held to be the most proper to use.

Galen wanted all parts of the human frame expurged from the materia medica, and he severely condemns Xenocrates for introducing them in medicine.

"In the 17th century" I quote from Robert Southey's work 'The Doctor' "medical knowledge among the lower practitioners was at its lowest point. Except in large towns, the people usually trusted to domestic medicine, which some Lady Bountiful administered from her family receipt book, or to a village doctress, whose prescriptions were as likely sometimes to be dangerously active, as at others to be ridiculous and inert." Old Gervias Markham, in his "Approved book, called the English Housewife, containing the inward and outward virtues which ought to be in a complete woman," places her skill in physic as one of the

most principal. "You shall understand" he says, "that since the preservation and care of the family touching their health and soundness of body consisteth most in her diligence, it is meet that she have a physical kind of knowledge; how to administer any wholesome receipt or medicines for the good of their healths, as well as to prevent the first occasion of sickness, as to take away the effects and evil of the same, when it hath made seizure upon the body" and "as it must be confessed that the depths and secret of this most excellent art of physic, are far beyond the capacityof the most skillful woman." He relates for the housewife's use, some "approved medicines and old doctrines, gathered together by two excellent and famous physicians and in a manuscript given to a great, worthy countess of this land." For consumption, there were pills, in which powder of pearls, of white amber and of coral were the potential ingredients; there was cock-water, the cock being chased and beaten before he was killed or else plucked alive, and there was a special water, procured by distillation from a peck of garden snails, and a quart of earthworms, besides other things. This was prescribed not for consumption alone, but for dropsy and all obstructions. For all faintness, and hot agues, heavy fantasies and imaginations a cordial was prepared, called Manus Christi, the true receipt required one ounce of prepared pearls to twelve of fine sugar, boiled with rose-water, violet-water, cinnamon-water or "how-so-ever one would have it," but apothecaries seldom used more than one drachm of pearls to a pound of sugar, because men would not go to the cost thereof, and the Manus Christi simplex was made without any pearl at all. For broken bones, bones out of joint or any grief in the bones, oil of swallows was pronounced exceeding sovereign, and this was to be procured by pounding twenty live swallows in a mortar with about as many different herbs. A mole, male or female, according to the sex of the patient, was to be dried in an oven whole, as taken out of the earth and administered in powder for the falling evil. A gray eel with

a white belly was to be closed in an earthy pot and buried alive in a dung-hill, and at the end of a forth-night its oil might be collected to help hearing." A mixture of rose-leaves and pigeons' dung, quilted in a bag and laid hot upon the parts affected was thought to help a stitch in the side, and for a quinsey "give the party to drink" says Markham, "the herb, mouse-ear, steept in ale or beer, and look when you see a swine rub himself, and then upon the same place rub a slick-stone and then with it slick all the swelling and it will cure it." To make hair grow on a bald part of the head, garden snails were to be plucked out of their houses, and pounded with horse-leeches, bees, wasps and salt; an equal quantity of each, and the baldness was to be anointed with the moisture from this mixture after it had been buried eight days in a hot bed. For the removal and extirpation of superfluous hair, a depillatory was to be made by drowning twenty green frogs in a pint of wine, setting the pot forty days in the sun and then straining it for use. A water specially good against gravel or dropsy might be distilled from the dried and pulverized blood of a black-buck or he-goat, three or four years old, kept by himself in the summer-time when the sun was in Leo, and dieted for three weeks upon certain herbs, given in prescribed order, and to drink nothing bnt old red wine, if you would have the best preparation, though some persons allowed him his fill of water every third day.

The celebrated Nicholas Culpepper wrote his medical works about this time. His "School of Physick, or the English Apothecary," was printed in 1658, and a few extracts will show his mode of practice as well as the contents of his apothecary's shop. He says:

"The hoofs of the forefeet of a cow, dryed and taken anyway, increase milk in nurses.

"An excellent cure for the gout is to take a young puppy, all of one color, and cut him in two pieces, through the back, alive, and lay one side hot to the grieved place; the inner side I mean.

"The little bone of the knee-joynt of a hare's hinder

leg doth presently help the cramp, if you do but touch the grieved place with it.

"A little piece of the tongue of a fox applied to the place draws out a thorn or anything else that is gotten deep into the flesh.

"The head of a cat that is all black, burned in a new crucible, and made into fine ashes, and a little of it blown with a quill into an eye that hath a web or pearl growing before it, three times a day, is a most sovereign remedy.

"A comb made of the right horn of a ram cures the headache, if it lie on the right side of the head, being combed with it; of the left horn for the left side.

"If any be troubled with stomach-worms, let him hold a piece of honey-comb in his mouth and the worms will come out to the honey.

"Dry a bullock, sheep or goat's bladder, and beat it into powder and give a drachm of it in water to such as can not hold their water, or use to wet their beds, and it will help them. I remember once I cured a great lubber that could not lye all night without wetting his bed, nor remain a quarter of an hour in the day without making water, by only advising him to drink no other drink than what had been tied up twelve hours in a sheep's bladder.

"The brain of a weasel dried and drank in vinegar cures the falling sickness; the gums of young children, being often rubbed with the brains of a hare or cunney, their teeth will cut easily. Mark where a swine rubs himself, then cut off the piece of the wood and rub any swollen place with it and it will help it; with this proviso: that where the hog rubs his head, it helps the swelling of the head, and where the neck those of the neck. Mice dung, with ashes of burnt wasps and burnt hazelnuts, made into an ointment with vinegar of roses, will trimly deck a bald head with hairs. Draw a cord through the tail of a watersnake and hang her up—a vessel of water being under her, into which she may gape—and after a little time she will vomit up a stone, which will drink up

all the water; this stone being tied to the naval of one that has the dropsie, quickly draws out all the water.

"Take a great overgrown toad and tie her up in a leathern bag, pricked full of holes, and put her, bag and all, in an ant-hill, and the ants will eat away all her flesh, and then you may find the stone, which is of marvelous virtue. If a man be poisoned, it will draw all the poison to it presently; if he be stung by a bee, wasp, hornet, or bitten by an adder, by touching it with this stone both pain and swelling will presently cease.

"The pizzle of a hare dried and powdered, and the powder drank in wine, you shall finde an excellent remedy not only for a looseness, but also for the diabetes.

"Take the dung of a stone-horse, that is kept in a stable, and fry it in muskadel and apply it to the navil, and it will stop any flux of the belly whatsoever.

"The urine of a boar taken and drank inwardly is an admirable remedy to break the stone.

"An excellent remedy for the piles, the conceit of which pleases me very well, is this: Take a gray cat and cut her throat; then flay her and roast her, and save her grease; boil the blood and the grease together, and anoint the piles with it as hot as you can endure it. This seems to me pretty rational, because a cat is a Beast of Saturn.

"Take a young whelp in March, kill him and flay him, and pull out his guts and fill up his belly with water-frogs; sew up his belly close again, then roast him and save the drippings for a special remedy for the gout.

"The best way that I know of for the biting of an adder this: Catch the same adder that bit you, cut her open and take out her heart and swallow it down whole; also, cut off the head of the adder and apply it to the wound—both these together would give a cure to admiration. If an adder be crept into a man's body this do: Take a handful of rue, boil it in the urine of the party and let him drink the decoction, and it will make the beast make more haste out than it did in.

"To draw the venom out of a plague-sore take a cock-chicken, pull off the feathers till the rump be bare, then hold the bare fundament of the chicken to the plague-sore and it will attract the venom to it from all parts of the body and die.

"The best remedy in the world against the strangury is this: Save all the water the diseased party maketh and let the diseased party drink it down back again, and that in a very few days will cure him.

"The ashes made of a dog's head helpeth the fistula, or take goats' dung, boil it with honey, strain it and drop a little of it while warm into the hole; or, if it be a woman that have the fistula, drop into it the juice of a cow's dung; but if it be a man, let it be the juice of a bull's dung.

"Alectorious is a stone found in the ventricle of an old cock; it maketh him that beareth it beloved, constant and bold—beloved of women, and strong in the sports of Venus.

"If you use, when you go to bed, to rub your finger between your toes and then smell to it, you shall find it an excellent prevention both of cramps and palsies.

"Take all the urine a party makes at one time that hath the Quartan ague, and knead flour and make a cake with it, and when it is baked give it to a dog of the house. Do so twice or thrice, and in so doing the party will be well and the dog sick. Choose a dog for a man, but a bitch for a woman.

Well, gentlemen, Dr. Culpepper has quite a quantity of such recipes, but, as the language used is not suitable for ears polite, I forbear mentioning them. Even in those enumerated I have been compelled to alter his expressions. It is, moreover, sufficiently shown how medicine was practised two hundred years ago; and while we wonder at the little progress made during the two thousand years that had passed, from the days of Hipocrates to the beginning of the last century, surely with pride can we point to what has since been done, and I doubt not but that in succeeding ages medical teachers will tell their pupils of the men who

wrought in their noble calling as far back in time as this the Nineteenth Century, with the injunction:

"Go thou and do likewise."

Leprosy as Seen in Brazil.

By J. McF. GASTON, M. D., of Atlanta, Ga.

Numerous cases of leprosy, in all its stages, having been under my observation during a long residence in the Empire of Brazil, it may not prove uninteresting to the medical profession to give some facts connected with this disease.

It has occurred on such a limited scale thus far in North America as to have attracted but little attention from physicians, and the isolated cases reported in Louisiana, California, Minnesota and elsewhere, have not excited any general apprehension of the extension of leprosy in this country by infection.

Notwithstanding the lack of conditions for the propagation of morphea, or leprosy, cases brought from other countries, while still free from the disease, have become developed in the United States, so that it behooves all medical men to become acquainted with the characteristics of this grave disorder; and this paper will be limited to such details as may serve for recognizing its various phases when the disease is encountered.

The appearance of leprosy in different portions of the globe, with widely diverse climate and temperature, as in China and Norway, would indicate that there may be territorial conditions in some localities favoring its development or other influences independent of temperature; and it is more probable that it results from the mode of living adopted by the people than upon the atmospheric conditions. While it is thought generally to be contagious when persons are brought in close contact for a long period, the evidence of its communicability from the diseased to the sound, under ordinary circumstances of association, is by

no means established; and the medical faculty of Brazil hold that it is not a contagious disease in the sense that variolous poison is disseminated. The hereditary transmission of the disease is established by numerous instances of the children of leprous persons becoming affected, and this even when born previous to the outbreak of the disease in the father or mother. The conviction of the people of the propagation of the disease from husband to wife, or *vice versa*, tends to the interruption of the conjugal relations so soon as it is disclosed in either, and for the most part to the entire separation of the affected party from the family, though a room under the same roof may be occupied by the subject.

It is not confined to any class of society, and the high and the low, the rich and the poor, the refined, cultivated lady or gentleman, and the debased, illiterate male or female, are subject to this terrible scourge; but those in the better walks of life are not brought under its influence so frequently as the humble portion of the population in the country.

My individual study of the disease has been confined to the province of St. Paulo, lying between 20° and 25° south latitude, in the Empire of Brazil, and having an opportunity to note the progress of it in three distinct localities at considerable distances from each other, during my stay at those several locations, it was not observed that there was any marked variation in its development from sectional modifications upon the subjects of leprosy.

To appreciate correctly the topographical aspect of that region of South America it may be stated that along the coast line there is a range of sierra or a sudden elevated ridge of land, reaching at some points an altitude of two thousand feet above the level of the sea, and from this an irregular table land extends back into the interior, with a gradual declivity from the crest of the sierra. There is, for the most part, a narrow strip of low land between the water and the foot of this sierra, and upon this are found the seaport towns of Santos and Cananea, with Iquape and

Cariceicos located within the coast line. And upon this low strip of land are many isolated inhabitants along the coast. Having traversed all this region, and to some distance over the comparatively low land of the region extending back from Cananea and Iquape, no case of leprosy was encountered on the coast side of the sierra. But so soon as the ascent was made, and the high table land was reached, the horrible scene was presented of the groups of lepers camped upon the roadside and coming forth to ask alms of the passers by, who invariably respond to the application by pitching a few coppers to each.

The fact of the non-appearance of leprosy upon the lower lands of the province of St. Paulo does not quadrate with the reports of its appearance in Louisiana upon similarly located regions, and we must, therefore, look to something else than altitude as an explanation of the growing prevalence upon the higher regions. What this depends upon cannot be satisfactorily determined, and the only plausible solution which presents itself is the greater preponderance of animal food, principally fresh pork, with lard as a large element of tempering in all their food, amongst the inhabitants of the table lands, where this disease prevails; whereas, in the lower territory fresh fish, with more vegetable food and fruits are used by the people who are exempt from it.

With these general remarks touching the conditions under which leprosy makes its appearance in the region which has been under my observation, I will proceed to delineate the features which mark its incipiency, progress and full development, with some of the measures that have been adopted in different stages of the disease.

The most constant feature in the outset of leprosy among the Brazilian population is greater or less local insensibility of the cutaneous surface upon circumscribed portions of the lower or upper extremities, and for the most part upon the fore-arm or leg. This is accompanied very soon by a want of the normal complexion of the part, assuming in the Caucasian race, a whiter aspect

than the surrounding tissues, and in the Egyptian race a dull ashy hue.

Subsequently, or at times concomitantly, the color of the hands in the white subject is found, when in a dependent position, to be increased, so as to partake of a more florid hue at first, then a purplish tinge, and finally turning to a bronze complexion; with the disappearance of this engorgement of the capillaries, upon elevating the hand above the head. It is proper to note these abnormalties in the peripheral distribution of nerves and the capillaries in the incipiency of the disorder, as calculated to throw some light upon the nature of the disorder, which must be considered as a subject for further investigation by pathologists.

When these phenomena have existed for a few months, there will appear a thickening and hardening of the tissues in the lobes, or pendulous lower portion of the ears, the alæ of the nose, and about the eyebrows, with falling of the hair of the brow, that in the end become entirely depilated. As yet there has not occured any marked discoloration of these tissues; but nodules are soon developed about the cheek bones and the forehead, with a slight coffee color in all the salient parts.

The hands and feet exhibit irregularities, partaking of the same hue, and there is some enlargement of the terminal appendages for a time, which soon, however, gives way to a diminution of their size from the shrinkage of the tissues; and there is a characteristic depression between the metacarpal bones of the thumb and forefinger, which ordinarily presents in the normal condition a protuberance, upon approximating the thumb with the forefinger, side by side, lengthwise.

At this stage there is usually a very considerable brownish discoloration of the ankle and lower portion of the leg, and yet strange to say the other portions of the body that are entirely protected by clothing, preserve their natural appearance even in the further progress of the degeneration of tissue about the face and extremities.

If depurative remedies are assiduously used, the disease

may continue without any material aggravation for a year or two, with the appearances described, and in the meantime the patient is flattered with the delusive hope of an arrest of its development; but leprosy once set up in the system never retrogrades, and ere long, in spite of all the means used, it proceeds to disintegration.

The nodules and irregularities in different parts take on gradually a destructive ulceration upon the most prominent surfaces, and the degeneration extending to the deeper seated tissues, open running sores appear, that are very offensive, not only to the sense of sight, but also to the olfactories.

In connection with this breaking down of the nostrils, the extremities of the fingers and toes assume a gangrenous state, and the first phalanx of one or another falls off, and thus progresses in some cases until it reaches the articulation with the metacarpal and metatarsal bones, when death finally ensues.

A more hideous exhibition of diseased action has never passed under my view than the distorted features and maimed hands and feet of these lepers in the last stages of the disorder; and if for no other consideration than the protection of men, women and children from the disgust of such spectacles, they should be secluded from society in a separate locality.

When I first located in the city of Campinas, ten years ago, these disfigured masses of disease were allowed to come into the streets on horseback and go around asking alms, which being given in the form of coppers, these were passed through the fire before being delivered to persons who sold them supplies, and the dread of the disease was such that it is not supposed that even the greatest fondness for money led any one to take their silver accumulations without having them disinfected.

There was even at that time a lazaretto in the outskirts of the city, where these pitiful beings were provided with the necessaries of life at the public expense, but a mistaken view of charity tolerated their riding through the city

on Saturday to receive such contributions as were thought proper to supply the extra articles of food that might seem to render their calamity more bearable. With the advancement of civilization ample provision has been made for this miserable horde of unfortunates, in the erection of large and well-arranged quarters for them, entirely beyond the limits of the corporation, and they are supplied gratuitously with every needful article of food, with a physician to attend them in their ordinary ailments. They are thus excluded entirely from association with the uncontaminated population, and it is very rare that a leper, even with means to provide for every want, is domiciled within the city. It happens, however, that from family considerations persons of ample means continue to occupy their own houses after becoming far advanced with leprosy, and most of the physicians, as I have done on several occasions, visit such patients when called to treat incidental disorders. No one acquainted with the fatal progress of the disease undertakes to cure it. Yet experiments have been made in the early stages of the disease with various agencies, hoping that something might be discovered that should stay the progress of the disorganizing tendency in the fluids and solids of the body. The desperation of one laboring under leprosy in the city of Rio de Janeiro some years ago induced him to submit his arm to the bite of a rattlesnake, with the chance that one poison might be an antidote to the other in his frame; but he fell a victim to his rashness, and died with the ordinary consequences of the ophidic venom.

There is a medical man of highly respectable connections in Campinas, who has devoted himself to experimenting with medicinal agents upon the subjects of this disease, and claims through the public prints to have secured favorable results in a number of cases; but those who have come under my observation, that were treated by him, have not been even temporarily relieved, and although he has offered to treat cases upon the guarantee principal of a large fee in case of a cure, and only to re-

ceive compensation for his bottles of medicine in case of failure, I imagine he counts upon good remuneration in the price of his drugs, as he certainly has never been entitled to the larger sum for a cure.

There have been instances in my own practice of cases that looked suspicious being relieved, but no case of developed leprosy has escaped.

There have been cases submitted to the constant and continued use of medication with various articles, such as lime juice, sarsaparilla, podophilin, iodide of potash, bichloride of mercury, biniodide of mercury, Donovan's solution, Fowler's solution, and other arsenical preparations, but without any decided or permanent effect.

A vegetable preparation made from a vine called the "*sips sumo*" was much talked of as a specific about the time I reached Brazil on my first visit in 1865, but it all blew over in a few years, and was consigned to the list of other articles that were tried and found wanting in virtue. Alterative treatment in the early stages of leprosy has seemed at times to keep it in abeyance for a time, and I have so far relieved the premonitory symptoms of the disease as to flatter myself that a cure had been effected, yet at the end of a few months the recurrence of the leprous indications satisfied me that the disease was still lurking in the system. The common term used by the Brazilians for the disease signifies disordered blood, "desmancho de sangue," and the contamination of this vital fluid seems to be so complete that no remedy has been found to correct it. It might be supposed that those measures which produce a modification and improvement of the early symptoms would, if diligently persevered in, effect a cure of the constitutional depravity: but the record of cases treated by myself, or within my knowledge by others, presents little encouragement for success.

Viewing the disorder as allied to the class of cutaneous diseases, the article that gave most promise of a good result was arsenic, and I have pushed it so far as to give 50 drops of Fowler's solution three or four times a day, with

some apparent advantage for a time, yet the tolerance of the stomach for such doses ceased after its continuance for some weeks: and I have never been able to carry on the treatment so as to get the patient habituated to the article, as the population of the Alps become, in using it after a considerable period of time.

Leprosy affords the richest mine for exploration of anything ever presented to the pathologist: and the physician who may discern a remedy for it, will not only confer a lasting benefit upon humanity, but he may reap a rich harvest in the cheerful recognition of his services by the voluntary contribution of the thousands whose wealth would gladly be exchanged for health.

The possibility that this terrible monster may find a foothold in the United States at no very distant day, has prompted me to furnish an outline by which it may be detected in its incipiency: and I trust it may serve as a stimulus to discover a remedy that shall arrest its development.

Hygienic precautions, such as the regulations of the mode of living, with due regard to the articles of food, may avail as prophylactics in some cases, and thorough comprehension of the predisposing condition in the surroundings of those affected is demanded for any progress in the measures for averting this disease. But the closest observation and most mature study of its etiology has not thus far led to the adoption of any general plan that proves efficient in arresting the development of it when the germ is once implanted in the system.

The black plague is supposed to be modified, if not prevented, by a thorough system of drainage in the large cities formerly subject to this scourge. Cholera is claimed to be amenable to sanitary proceedings. Yellow fever seems to be mitigated by rigid quarantine and enlarged disinfecting appliances. The extension of malignant pustular degeneration, styled in French nomenclature, charbon, is held now to be arrested by a modified system of inoculation. Small pox is kept in abeyance by vacci-

nation. The ravages of constitutional syphilis, that formerly proved destructive, no longer prevail under the prompt and effective local and general applications of skilful treatment. Tubercular consumption has been shorn of its terrors, in the salutary regimen that looks to supporting the vital resources of the physical organization, though its supposed dependence upon bacilli has not yet enabled us to cure it by germicides. All the graver departures from health have at least their palliatives, while leprosy remains the opprobrium medicorum.

In view of the possible extension of leprosy from persons affected with it, the exclusion of all suspected subjects of the disease becomes an imperative duty of the authorities of the United States, and a health officer competent to recognize the incipiency of this terrible disorder should be at each port of entry from those countries that are known to have it among their population. It would be the dictate of prudence to go still further and remove beyond the limits of our territory every case that may be discovered in any part of their country: and although an effort has already been made to provide for those unfortunates outside of the more populated regions of North America, the proximity of such settlements to the inhabitants, still admits a more or less intercourse. The hygienic precautions should be carried to the extreme point of seclusion with all cases of leprosy; and though it may not be considered as coming directly under the category of a contagious disease, it most assuredly has an endemic quality that endangers those who reside in the immediate proximity of those affected with it, and the tendency to extension in certain sections may depend upon a contamination of the surrounding atmosphere through the emanations from the bodies of those suffering with the disease by infection. This evil should be nipped in the bud, and the most vigorous measures should be adopted to stay its propagation throughout our land. Let Boards of Health look out this disease, with its hideous incurable development, and insist upon a vigorous preventive policy throughout the United States.

Report of a Fatal Case of Chloroform Narcosis, Charity Hospital, New Orleans.

By Luther Sexton, M. D.

Catherine M., thirty-five years of age, a native of New York, has lived in Louisiana for twenty years, resided in New Orleans, was admitted to the Charity Hospital November, 12, 1881, suffering from ulcer of the right leg dependent upon necrosis of the tibia, supposed to be of syphilitic origin. She was a laborer by occupation, and lived a rather fast life, often spreeing, and had been intoxicated a week before the attempted operation. She had been in the Hospital upon three different occasions, once for malarial fever and œdema of the legs, another time for ulcer of the leg about ten months ago, at which time I gave her chloroform for Dr. Miles to remove some pieces of necrosed tibia. She took the agent badly, but no symptoms of a dangerous character appeared, so chloroform was given until complete anæsthesia was produced. The necrosed bone was removed, the sinuses closed up and the patient was placed under my care during her treatment, which consisted of oxide of zinc ointment, compound jalap powder, and general tonics. She remained in the city during the summer, leading rather a fast life, especially as regards drinking, and was again admitted to the Hospital about three weeks after her discharge, suffering from a second attack of necrosis of the tibia. On Saturday, November 12, 1881, the patient was brought before the class by Dr. Levy for Prof. Logan to remove the necrosed bone. After some remaks on the causes of caries and necrosis, and the different modes of treatment for these conditions, the patient came into the amphitheatre and was placed upon the operating table. I was asked to give chloroform and in order to adopt every precaution, though I had given chloroform to her before (and one of the other students had also given it to her), I examined her heart to see if I could discover any abnormal sound. The pulse and respiration were both good, so all her clothing were loosened both around the waist and throat, the ordinary napkin cone

was used, and about ℥ss chloroform was poured into the cone. This was held about three inches from her nostrils freely mixing the vapor with the air. As soon as the patient become accustomed to the vapor of the chloroform the cone was gradually brought nearer the nose and about another ℥ss was poured into the cone; then the patient began to be restless. Mr. Michinard, resident student took the other arm and pulse, as I had had one from the beginning of the administration. The pulse was beating about seventy-five per minute when I began the chloroform, and it weakened and became gradually faster till it was ninety per minute when the stage of excitement came on. At the first evidence of muscular rigidity I removed the chloroform entirely from the patient. Her pulse was good but the respiration was what alarmed me. I called Prof. L's attention to the patient; he examined her pulse and told me to continue with the chloroform, remarking that hard drinkers took the agent badly. A short time previous to this Dr. Souchon had poured on about ℥ss of chloroform so I held it about three inches from the nostrils without adding any more to the cone. She only took two more inspirations when a gasping inspiration and some stertorous breathing showed the serious condition of our patient. Prof. Logan who had been watching her closely remarked "we will have to attend to this," and with this we began the artificial respiration (Sylvester's Method). We also applied nitrite of amyl, and ammonia to the nostrils, and slapped the breast with cold towels. The only encouragement from all this treatment was an occasional gasp. We had lowered the head from the beginning, but we now suspended the patient by the heels, and kept up the artificial respiration for one hour, as the heart continued to beat faintly for some time. We also applied electricity over the heart and back of the neck and respiratory muscles, but all our efforts were in vain and regardless of all the revivifying efforts used, and carefully too, by Drs. Logan, Levy, Souchon, de Roaldes and the resident students, it was all in vain, our patient was dead.

It was all the work of a second, without a premonition, without a moment's warning. Our patient had died apparently from a spasm of the diaphragm and other respiratory muscles, as the heart continued to beat for some time after respiration had ceased. I had watched her respiration closely from the commencement of the inhalation. It had been mostly of the abdominal type and very shallow. My hand too was on the pulse from the beginning: this was a complete index to the action of the heart which gradually weakened and increased in frequency, but no more than I have observed in some two hundred administrations that I have made during my three years service in the Charity Hospital. That the state of complete anæsthesia is an extremely dangerous one has always been apparent to me and in no case where I have been called upon to give an anæsthetic have I taken the duty upon myself without some trepidation. But to witness a fatal termination thus early in my professional experience, and to know that it was entirely unavoidable, impresses me with a vivid conciousness of the fact of how entirely helpless we are in certain cases.

A post-mortem was made and the following pathological conditions were found: *Lungs.*—Right lung adhered to the diaphragm and ribs, collapsing more than usual on opening the chest. They were normal in their color throughout, but presented a number of bulging processes due to emphysema, there were observed also a number of echymosed spots, situated directly beneath the pleuræ. Pleuritic adhesions covered the right lung. *Heart.*—All the cavities filled with very dark fluid blood. The heart seemed to be somewhat dilated. The right auricle and ventricle contained a fibrinous clot reaching into the pulmonary artery and its larger branches, and a very firm clot was found attached immediately over the right auricular-appendix, but it was thought to be post-mortem. *Liver.*—Enlarged by congestion, traces of fatty infiltration: upper portion of liver and diaphragm adherent to each other. *Kidneys.*—Congested, red, contracted: consistance hard, indicating

interstitial nephritis, the capsule rather adherent. *Intestines.*—More or less congested, as the patient had been suffering for one week from acute diarrhœa. *Bladder.*—Contained about teaspoonful of urine, which upon the addition of nitric acid, because almost solid with albumen: the mucous membrane of the bladder was very much congested. *Uterus and Ovaries.*—Uterus normal, fallopian tubes dropsical, ovaries slightly knotted. *Brain.*—Considerable sub-arachnoid fluid: veins of the pia congested: upon the left temporal and posterior lobes of the cerebrum three small yellow spots of gelatinous consistence were observed. They very likely represented some small lesions of the cortex, supposed to be syphilitic in its origin. The brain substance itself was anæmic, but showed no other pathological changes.

An analysis of the different causes of death from chloroform convinces me that a vast number of such cases are never reported. It is the rarest occurrence for death from chloroform to be announced in private practice, though we know such accidents do take place. About the only cases we see recorded now happens to some over-officious and unlucky dentist, who is invariably passed around the secular press in rather a rough style, or occasionally we hear some very old M. D. casually remark that many years ago he did see such a case in consultation. The belief that publicity, and even minute details, should be given of every case, it matters not where or how it occurs, has prompted me to give the profession the facts I observed and the meagre deductions drawn from the foregoing history.

Thinking that the article of chloroform used in the case might contain some impurities, or have degenerated from exposure to light, I submitted it to the following tests for the detection of such impurities: *For Alcohol*—A few drops of chloroform added to fresh egg albumen caused no change, whereas, if alcohol had been present, the albumen would have coagulated. *Acids*—A dilute solution of acid containing chloroform did

not form any precipitate, when solution of nitrate of silver was added; litmus paper also gave a negative result. Long exposure to light renders chloroform dangerous, by setting free in the chloroform chloroxy-carbonic acid gas: especially if the chloroform has been contaminated with chloral hydrate. Chloroform thus exposed to light is entirely unfit for use. The chloroform which we used, however, was entirely free from all these impurities. After all the foregoing tests had been applied, and the chloroform found to be pure, a post-mortem was held, the result of which has already been given in detail. We knew that the patient had been a hard drinker, which was a contra-indication for administering the drug: the patient had just been admitted into the hospital and had not been examined by Dr. Logan, but was sent immediately into the amphitheatre for operation, and nothing was known of the condition of the kidneys (urine almost solid with albumen), or the acute enteritis with which she had been suffering for one week, till the post-mortem was made, which revealed the facts. Doubtless these conditions had something to do with the fatal termination which might possibly have been averted had the doctor been made aware of the facts, as the operation would have been postponed till her condition improved.

In our patient, death occurred shortly after the addition of about half drachm of chloroform to the cone, though the napkin was held some three or four inches from the nostrils, so that at no time was the atmosphere which she breathed more than 5 per cent. chloroform vapor. The air was circulating freely in the room all during the administration. No opiate or stimulant was given previous to the chloroform. There was no vomiting in the case: the stomach was comparatively empty on post-mortem examination. We considered the propriety of administering ether instead of chloroform: but, as the latter was the almost universal anæsthetic of the hospital, and considered less dangerous, for old topers especially, as the exciting stage of ether is almost unmanagable in some cases of

hard drinkers, we decided to give the chloroform. The use of chloroform has gotten to be so common in practice that a physician can hardly make his daily rounds without being called upon to administer it. Many practitioners use it extensively in their obstetrical cases almost to complete anæsthesia: some labor under the delusive theory that the parturient female is safe from any danger through the use of this agent. The history of deaths from chloroform, however, furnishes a record of some six or seven cases whose condition did not purchase this immunity. Some patients clamor for the most trivial affair: when a little fortitude on the part of the patient would enable them to stand the operation. The condition of complete anæsthesia is no trivial matter. Chloroform is not an unmixed good. Complete immunity from the tortures of a difficult and painful operation cannot be purchased without some risk to the patient. Let one be ever so experienced in the administration of an anæsthetic, and every possible care be taken, still death sometimes overtakes our patient, and usually when we are least prepared to avert it.

Despite all the revivifying agents our case proved fatal, and every attempt at resurrection proved futile, and we were left to record the only death in the hospital for the past six years.

Quarterly Review of Ophthalmology and Otology.

HENRY DICKSON BRUNS, M. D.

Tweedy on some forms of increased hardness of the eyeball, and their treatment by local application of atropine, or of eserine and other mydriatics or myotics:

In a paper in *The Practitioner*, November 1883, Mr. John Tweedy, F. R. C. S., lucidly explains, and strongly supports, the theory which regards glaucoma as a group of symptoms resulting from increased tension caused by blocking of the iritic angle, and assigns the increased tension sometimes found in acute iritis and aquo-capsulitis (serous iritis) to the same cause; brought about in the one

case by effusions of lymph on the lining membrane of the ant. chamber, and in the other by similar morbid products poured out from the iris, partially closing the openings of Fontana's spaces in this angle. Atropine, the writer holds, reduces intra-ocular pressure in a normal eye by contracting the arterioles of, and lessening secretion from, the uvea. In acute iritis the drug acts in a similar manner, the dilatation of the pupil, by establishing free communication between the two chambers, also tending this way.

Intra-ocular pressure is raised by atropine where the ant. chamber is shallow (glaucoma) because the iris is packed back into the iritic angle.

Eserine lessens intra-ocular pressure in the cases where the ant. chamber is shallow for reasons the opposite of those just stated. Eserine produces the same effects in some cases where the ant. chamber is deep (serous iritis) by tearing off particles of the lymph which blocks the openings of Fontana's spaces. Eserine increases intra-ocular pressure:

1. In the healthy eye (slightly) by determining blood to the ciliary body and iris.

2. In iritis by stimulating the process in the manner just indicated.

3. "In aquo-capsulitis sometimes, for similar reasons."

Mr. Tweedy concludes: "In glaucoma eserine is indicated; in iritis astropine; and in aquo-capsulitis, if anything, weak solutions of atropine" in order to prevent or to break through fine posterior synechiæ.

Abadie on the surgical treatment of glaucoma:

Dr. Charles Abadie in *Bulletin Général de Thèrapeutique*, 15 November, 1883, reports a case of glaucoma where the tension was very high, the papilla deeply cupped, and the vision reduced to counting fingers at the distance of a few centimetres on the temporal side, in which although a sclerotomy was followed by relapse in eight days, and a large iridectomy by the same result in three weeks, tearing out a portion of the nasal branch of the fifth nerve

(after the method of Badal) permanently reduced the tension to normal, greatly increased the vision, and relieved the severe suffering. The author is sanguine that this operation will be of great good not in the acute or subacute, inflammatory or secondary, forms of the disease, which should be treated by iridectomy: not in the simple chronic glaucomas where the tension is not excessive, which, he thinks, are best relieved by sclerotomy; but in non-inflammatory forms which have not proved amenable to these means: especially in a class of cases met with in aged persons where extreme tension is accompanied with little or no cupping.*

The treatment of conjunctival granulations by massage:

In the Medical Congress at Athens Dr. Costomyris strongly recommended the treatment of granulations, acute or chronic, by the gentle rubbing of the everted palpebral conjunctiva with the finger dipped in finely powdered boracic acid. The rubbing is to be repeated once a day, when, in the course of five or ten, or at most forty days, the granulations will have entirely disappeared, leaving the conjunctiva entirely free from scars, unless they existed before the institution of the treatment. When scars already exist in the conjunctiva they are diminished in size and rendered soft and smooth. The author claims that there are no relapses.

The method has been used in at least 200 cases with excellent results, and Dr. Costomyris promises to publish his observations in full at an early date. [Abstract of report in *Journal de Med. et Chirurgie Pratiques*, December, 1883.]

Landesberg on some new facts about astigmatism, in Maryland Medical Journal, December 29, 1883:

Dr. M. Landesberg maintained that "regular astigmatism may develop in any cornea," as the result of "progressive myopia, with or without spasm of accommodation—spasm of accommodation in an emmetropic, myopic and hyper-

* Described by the writer, and by him called "simple senile glaucoma."

opic eye. After mentioning a communication of his upon this subject in Græfe's Archives of Opthalmology, based upon fourteen cases, he cites three, from thirteen additional cases, to confirm his opinion. The three patients whose cases are described were all schoolboys (aged from 10 to 14 years), who were overtaxing their eyes at near work. In each case well-marked symptoms of accommodative spasm and retinal hyperæmia were present, and examination revealed quite high compound astigmatism. After complete rest of the eyes, with constant use of mydriatics, and occasional use of the heurteloup for two or three months, the astigmatism disappeared and the patients could use their eyes with comfort. But observe: In every case the examination* by which the presence of myopic astigmtism was determined was made *without the use of atropia or other mydriatic*, and the glasses which are supposed to be the measure of the degree of the refractive errors *failed* in each case *to increase the acuity of vision to more than* (about) *one-half of the normal*. These facts vitiate all of Dr. Landesberg's conclusions. The three examples were cases of accommodative spasm caused by the excessive use for near work of imperfect eyes. At first impossible to estimate, after thorough paralysis of the ciliary muscle and relief of the retinal congestion, the true refractive condition was found to be slight myopia in two cases, and a low degree of hypermetropia in the third.

Bernard Roth, F. R. C. S., on a new treatment for chronic noises in the head (tinnitus aurium), in British Medical Journal, November 24, 1883:

The treatment consists of (mediate?) percussion with a blunt ivory hammer over the forehead and vertex. One case is reported which was much benefited by treatment during eight days.

G. P. Field, on ivory exostosis of the external auditory meatus: Removal by the American dental engine:

The exostosis was drilled away in thirty-five minutes, the patient being under the influence of chloroform.

* Made at only twelve feet.

(Report of paper read before the British Med. Assn., thirty-first annual meeting, *British Med. Journ.*, Nov. 24, 1883.)

Mr. Rd. Williams, on a case of chronic otorrhœa, resulting in thrombosis of the lateral sinus, septicæmia, and death, in British Medical Journal, November 24, 1883:

The symptoms in the case were pain, stiffness of the neck on the affected side, rapid and dicrotous pulse, and elevation of temperature. No redness and swelling over mastoid. Ophthalmoscopic examination revealed double optic neuritis. Besides the pathological conditions mentioned in the title of the paper, the necropsy showed that the mastoid cells were carious, and full of fœtid pus. Mr. Williams asks whether it might not be well to perforate the mastoid cells in such cases even when the discharge from the middle ear is apparently free and unobstructed, and there are no symptoms of inflammation of the cells.. For our own part we answer decidedly, no. Such a proceeding would be unsurgical, and it is impossible to estimate the mischief that might be done if we were to go probing into these cells in every case of middle ear inflammation presenting brain symptoms.

Schaffner, on mastoid necrosis, meningitis, double optic neuritis, and atrophy of both optic nerves in a case of suppuration of the middle ear:

Dr. Chas. Schaffner reports, in the *Med. News* of Jan. 5, 1884, the case of an eleven-year-old girl who, five years ago, had an acute, purulent middle ear inflammation, succeeded in a month by mastoid necrosis, followed in time by facial paralysis and cerebral meningitis, accompanied by divergent strabismus and blindness. Suppuration was still going on in the middle ear when Dr. Schaffner first saw the patient, and sight had steadily improved. Vision was: right eye, 10-cc: left eye, 6-cc. Examination with the ophthalmoscope showed the presence of well advanced atrophy of both optic nerves.

Dr. J. Minot, on Galezowski's and Dr. C. Bell-Taylor's method of extracting cataract, Cincinnati Lancet and Clinic, December 22, 1883:

Galezowski uses no anæsthetic, dilates the pupil, incises the capsule in a vertical, and then in a horizontal direction, with the point of the knife immediately after making the puncture, and does not perform iridectomy. "He had, at the time of the report, operated upon sixty-four cases without the loss of an eye, and regarded the visual results as superior to those obtained by von Græfe's modified linear method."

Dr. R. M. Ferguson, on a remarkable case of astigmatism, Louisville Medical News, December 15, 1883:

Notes of a case of regular compound hypermetropic astigmatism, in which, although the degree of the refractive anomaly was not very high ($+1$ D. S. $\bigcirc +1.25$ D. C.) the reflex nervous symptoms were most extraordinary. For fifteen years the patient had been unable to look at stripes, checked goods, "polka dots," etc., without immediately becoming affected with nausea, frontal headache, and many other symptoms of nervous prostration. The use of proper glasses completely relieved the trouble.

Dr. Geo. H. Lyman, on tinnitus aurium and vertigo, as prominent symptoms of lithæmia, Boston Medical and Surgical, December 13, 1883:

Dr. Lyman points out that in certain obscure cases of tinnitus aurium, with or without vertigo, where an examination of the ear has left the aurist as much in the dark as ever, close questioning of the patient about his habits and mode of life, the presence of obscure nervous symptoms, painful swelling of the small joints, the functions of the stomach, liver and kidneys, will prove the case to be one of lithæmia "suppressed gout." In such cases attention to diet, salines, and the lithia salts will afford the most astonishing relief.

Dr. C. Bell Taylor, on the operative treatment of sympathetic

ophthalmia. Paper read before the British Medical Association, and reported in the British Medical Journal, December 22, 1883*:*

Two cases where eyes reduced to blindness by sympathetic ophthalmia, were restored to useful sight by removal of the lens, and a large piece of the iris and of the occluding inflammatory membrane.

G. E. Walker, F. R. C. S., on a case of acute sympathetic ophthalmia, in which the sight of both eyes was preserved. Read before the British Medical Association. British Medical Journal, Dec. 22, 1883.

Seven weeks after an injury of the ciliary region of the left eye, the right eye became acutely inflamed—(acute sympathetic ophthalmia. Iritis?) The eye was kept "drenched" with a strong solution of atropia, and fifty ounces of oleate of mercury, were used by inunction during a month and a half, when the inflammation disappeared. In the mean time, the left eye had healed, and at the time of the report, the sight, with correcting glasses, was 15-xxx.

Dr. J. E. Calhoun an the treatment of trichiasis by electrolysis. Weekly Medical Review, Nov. 24, 1883:

A fine needle in a light holder connected with a galvanic battery of six or more cells, is introduced into the hair follicle while the patient holding the positive electrode in the right hand presses the moist sponge against the palm of the left. The needle is withdrawn after about ten seconds and the hair pulled out. Dr. Calhoun has used this method in more than fifty cases and finds that not more than fifteen per cent. of the lashes return. A second or third operation may be necessary.

Dr. A. G. Heyl—Report on progress of ophthalmology, Medical Times, December 3, 1883 :

In Archivs für ophthalmol., 1883, Vossius gives the results of a large experience with iodoform in conjunctival and corneal diseases. The remedy, used in powder or in salve, was found of value only in corneal ulcers, especially

phagadenic ulcer. The report is based upon the treatment of ninety cases of corneal ulcer.

Dr. W. R. Thomas, on a case of exophthalmos without goitre in a man, quoted from Medical Press, in Louisville Medical News, December 22, 1883:

The patient had irritable heart, and Dr. Thomas is inclined to think the cardiac excitability due to cerebral trouble (in three cases he has seen the head symptoms precede the cardiac), which in turn affects the sympathetic system. He advances the theory that the exophthalmos may be due to hypertrophy and contraction of the *muculus orbitalis* and *musculus palpebralis superior*, two small groups of involuntary muscular fibres supplied by the sympathetic, which were discovered by Muller.

Dr. S. C. Ayres, on paresis of the ocular and palatal muscles in children. Cincinnati Lancet and Clinic, December 8, 1883:

A report of three cases, with remarks:

(*a*). Paresis of both abducens, of the soft palate, and of the power of accommodation, coming on in a child of eight years, after ulcerative sore throat (not diptheritic).

(*b*) Paresis of accommodation and of the soft palate.

(*c*) Paresis of the third pair from anæmia.

All of the cases recovered under appropriate tonic treatment, outdoor exercise, and correction of ametropia.

Dr. Berman. A case of exophthalmos, with loss of sight, and aortic insufficiency, benefitted by iodide of potash.– Maryland Medical Journal, December 29, 1883:

Dr. Berman, in November last, brought before the Clinical Society of Maryland, a negro woman aged fifty years, suffering from exopthalmos, whose sight had sunk in two days to light perception. The ophthalmoscope showed "some venous congestion of the disc," the outlines of which were a little hazy." No history or evidence of syphilis. After taking potass. iod., gr. viij, three times a day for a length of time (not stated), the exophthalmos

was less and she became able to count fingers at twenty feet.

Hereditary hemeralopia: In the annual report of the opthalmic clinic of Berne University, for 1881, according to the Archives of Ophthalmology, No. 304, p. 480, is a very interesting genealogy of a family, in which hemeralopia, combined with a high degree of myopia, is hereditary. The same law, which has been shown to hold good in red green and green red blindness, is always followed here, every other generation being affected."—*The Weekly Medical Review*, Dec. 1, 1883.

Dr. C. M. Hobby, on the danger of poulticing the eyes.—Iowa State Medical Reporter, November, 1883:

Dr. Hobby again vigorously calls the attention of general practitioners to the danger of poulticing the eye, and he gives it as a fact that more eyes are destroyed in the State of Iowa by poulticing than by all forms of traumatism.

Koch's cholera commission on Egyptian ophthalmia:

The examination by the commission of fifty cases of Egyptian eye-disease gave evidence that two different processes are confounded under this name. The one, of a more malignant character, is caused by a species a bacteria, similar to, and, perhaps, identical with, the micrococci of gonorrhœa. The other form, less serious, is characterized by the presence of very small bacilli in the interior of the pus cells (?)—*Medical News*, Dec. 29, 1883.

Smith, on jequirity.—Therapeutic Gazette, December, 1883:

Prof. Eugene Smith, in the Journal of the American Medical Association, confirms emphatically De Wecker's statement that 3 per cent. infusions of jequirity will produce severe purulent conjunctivitis, which rapidly cures trachoma. Although he has seen a large sluggish corneal ulcer heal under the influence of the drug, he cannot acquiesce in De Wecker's opinion that there is no danger to the cornea from jequirity infusion. Prof. Smith has treated

twelve eyes with jequirity. In each case there was swelling of the lids, headache and fever: in several cases nausea and vomiting. Susceptibilty to the drug varies.

Howe, on jequirity. Quoted from Buffalo Medical and Surgical Journal, October 1883, *in Therapeutic Gazette, December*, 1883:

Dr. Lucien Howe, has used jequirity in nine cases. In three, the treatment was very successful: in two, moderately good; in two a complete failure, and in two doubtful. Dr. Howe calls attention to the following facts: 1. The beans must be fresh· 2. The infusion soon decomposes and becomes inert: 3. Corneal ulcers may be produced during the treatment. Two patients complained of vertigo, and had hallucinations.

Dr. D. W. Green, on the use of jequirity in granular conjunctiritis and pannus —Columbus Medical Journal, Dec., 1883:

Two cases are reported. The ages of the patients varied from 60 to 12 years, and the duration of the disease from 2 to 10 years. Jequirity inflammation was at its height in 72 hours, and had began to subside on eighth day in the greater number of cases. Acuity of vision was doubled in three cases, quadrupled in one, and improved tenfold in one case. It was the youngest patient, the one in whom the disease was of shortest duration, whose vision was quadrupled. The infusion was made and applied in exact accordance with De Wecker's directions. Dr. Green is inclined to think that most benefit is derived from the use of the drug in the subacute stage, and that the prospect for the removal of a pannus is good in proportion as it is vascular and superficial."

Dr. E. B. Richardson, on jequirity in trachoma. Therapeutic Gazette, November, 1883.

Notes of a single case where one eye was treated after De Wecker's plan. Inflammation was at its height in 72 hours, and had subsided spontaneously in 72 hours more. The pannus had disappeared and sight was greatly im-

proved, but the exact amount of the improvement is not stated. The case had long resisted ordinary measures.

Dr. C. W. Tangeman, on jequirity.—Cincinnati Lancet and Clinic, December 1, 1883:

Dr. Tangeman calls attention to the statement of Sattler that he has been able to produce an ophthalmia by the repeated application of the bacilli of jequirity infusion which had been cultivated on gelatin for several generations: in one instance, as many as forty. The addition of bichloride of mercury, one part in eight thousand, sterilized the infusion and completely destroyed its therapeutic properties.

Fox, on the treatment of diseases of the lachrymal apparatus by medicated gelatin bougies.—Western Medical Reporter, October, 1883:

Dr. L. Webster Fox has had made by the Western Suppository Co., medicated gelatin probes about the size of Bowman's No. 6, which he uses in the treatment of diseases of the lachrymal sac and nasal duct. The probes are very pliable, easily introduced, soluble, and thus thoroughly apply the medicament to the whole of the diseased area.

Dr. Oren D. Pomeroy, on the use of his faucial Eustachian catheter.—New York Medical Journal, December 22, 1883:

Dr. W. R. Amick, on injuries of the eye.—Cincinnati Medical News, November, 1883:

Dr. C. Heitzman, on a specimen of sarcoma of the choroid and vitreous body presented before the New York Pathological Society, November 3, 1883:

Dr. D S. Reynolds, on foreign bodies in the eye.—Louisville Medical Herald, December, 1883:

Dr. Robt. Sattler's clinical remarks on ectropium.—Cincinnati Lancet and Clinic, December 8, 1883:

Dr. J. M. Ray, on cold, hot and warm applications in the treatment of diseases of the eye.—Louisville Medical News, December 29, 1883:

Dr. Shapleigh, on inflation in diseases of the middle ear—*St. Louis Medical and Surgical Journal, December*, 1883:

Proceedings of the Ophthalmological Society of the United Kingdom, December 13, 1883.—*The British Medical Journal, December* 22, 1833.

Chas G. Lee, notes on the Ophthalmic condition of deaf mutes.—British Medical Journal, December 15, 1883.

Dr. Edwyn Andrew, on the treatment of lachrymal obstruction.—British Medical Journal, December 15, 1883.

Dr. W. A. Brailey, on the tests of vision which should be applied to sailors.

Dr. E. C. Snellen, on the testing of colour sense and vision, especially with regard to sailors (with discussion).

Reports of papers read before the British Medical Association, thirty-first annual meeting.—British Medical Journal, November 24, 1883.

Dr. F. O. Marsh, reports of interesting cases from the Ophthalmic wards of the Cincinnati Hospital.—Medical News, January 5, 1884.

TRANSLATIONS.

[Translations from the *Deutsche Medizinal-Zeitung.*]

By A. McSHANE, M. D.

Inoculations of Intermittent Fever. C. Gerhardt.—Gerhard instituted experiments on two healthy individuals, with the inoculation of the blood of a patient suffering from intermittent fever; he took the blood at the commencement of the paroxysm. The following precautions were observed:

1. The place in which the experiment was performed was free from malaria.

2. The patient from whom the material for inoculation was obtained was free from other communicable diseases: e. g., syphilis.

3. The persons inoculated thoroughly understood the nature of the experiment.

4. The march of temperature of those inoculated was observed for a long time before the inoculation and showed an absence of fever.

The experiments gave the following results:

1. The cause of the fever is transmissible by means of the blood drawn at the commencement of the paroxysm.

2. The intermittent fever produced by such inoculation of blood differs from that arising in the usual manner, in having an irregular subsidence.

3. After a number of single attacks, or groups of attacks, a somewhat regular quotidian fever developed on the twelfth day in one case, and on the twenty-fifth day in the other. The type of the fever corresponded with that of the original case.

4. The intensity of the disease was in both cases so great (temperature 105.9, lasting twenty-four hours), that the experiment had to be cut short by the administration of quinine.

5. The attacks commenced, with few exceptions, in both persons, at the hour of inoculation, or else obtained their acme at this time.

It was difficult to determine the time of incubation; the first febrile movement appeared in one case on the seventh, and in the other on the twelfth day; the severest attack of fever began on the seventeenth and twenty-fifth day respectively.

The Action of Cantharidin upon the Kidneys. Dr. Ida Eliaschoff.—The changes in the kidneys after the introduction of cantharidin involve the glomeruli and uriniferous tubules. In the former, the characteristic phenomena of a glomerulo-nephritis are visible; while the secretion of urine is diminished or completely suppressed, an albuminous exudate, coagulable by heat, is poured out and colorless, and a few colored blood corpuscles escape from the vessels. But this is the only portion of the vessels of the kidneys that shows an intensive alteration; an emigration of colorless blood corpuscles can be positively ascertained nowhere in the stroma; only in the region of the pyramids were cells collected in the tubuli recti, which might be considered as escaped colorless blood-corpuscles.

The changes in the tubules followed those in the glomeruli, which are the same in the tubes of the cortex, in the

tubuli recti, and the ascending limbs of the boundary layer (*Grenzschicht* of Ludwig); they consist in the destruction of the inner half of the epithelia, which either become at once detached, or else previously undergo granular disintegration; many nuclei thereby escape and fall into the lumen; the peripheral part of the epithelium, together with the rest of the nuclei, remains as a thin continuous layer upon the membrana propria.

The ascending limbs of the tubules are the most resistant; they become affected later than the others. The straight tubes of the medulla suffer simple epithelial desquammation: after the glomerulus, this is the second division of the uriniferous tubules in which an escape of colorless blood corpuscles can be demonstrated.

Fibrin-cylinders were observed only once, and that in the medullary portion, only because death occurred too soon; but it can scarcely be doubted that also the granular nucleated protoplasmic masses undergoing disintegration in the tubules of the cortex, become later on converted into cylinders.

Pruritus.—In general or local pruritus in women at the menopause, Chéron has found veratrin most effective. He employs it locally, in ointment: Veratrin, gr. ii; lard, ℥; a piece the size of a pea to be rubbed in. In general pruritus, he gives, internally:

℞.—Veratrini, gr. iij.
Pulv. Liquiritiæ, q. s. ut ft. pil. 40.

Sig: Two to six pills to be taken daily; one pill one or two hours before, or three hours after each meal. More than one pill should not be taken at a time.

The Globus Hystericus. Dr. Theodore Roth.—Roth has experimented with tinctura radicis pyrethri upon persons suffering from *globus hystericus;* and with this preparation he has obtained very good results. He gave 10 to 20 drops of the tincture four times a day, according to circumstances. Larger doses caused slight vertigo and irritation of the gastric and intestinal mucous membrane. Six cases in all were reported, two of them being men, in whom the tincture acted very well.

Croupous Laryngo-tracheitis.—According to a communication from Prof. Scarenzio, Dr. Boni has observed rapid improvement resulting from the subcutaneous injection into the arm of five grains of calomel, in a child 1½ years old.

The patient was in extremis, and all other measures had failed.

Whooping-Cough.—Dr. Moncorvo, of Rio de Janeiro, ignoring the parasitic nature of the disease, recommends, in whooping-cough, the local application of a 1 per cent. aqueous solution of resorcin, by means of a very fine camel's-hair pencil, upon the entrance of the larynx. In a large number of observations very rapid cure took place.

Syphilis of the Lungs. Dr. de Renzi.—In his treatise on this subject, Renzi comes to the following conclusions:

1 Pulmonary syphilis may be either hereditary or acquired. The latter form, which Renzi has most frequently had opportunity to observe, is not so rare as is generally believed. In many cases in which pulmonary phthisis had been diagnosed, the real trouble, on the contrary, was syphilis of the lungs.

2. The development of pulmonary syphilis is favored by weakness of the patient, light catarrh of the respiratory tract, of the larynx, trachea or bronchi, or by chronic catarrh of these organs. Catarrh of the air-passages can, in a syphilitic patient, settle on the lungs, even when the individual enjoys robust health.

3. Syphilis of the lungs presents no special and characteristic appearance. All symptomatic phenomena, and those referable to the subsidence of the disease, which are found in syphilis, can also be observed in pulmonary tuberculosis.

4. In order to distinguish the two diseases, there are certain signs, which Renzi, after weighing their value, thus recounts:

(*a*) Absence of bacillus tuberculosis from the sputum.

(*b*) Effectiveness of an anti-syphilitic treatment, which produces rapid improvement and even cure, if there be syphilis; but if the treatment fail, then the diagnosis is not confirmed. The therapeutic criterion is in general doubtful if iodide of potassium be employed; but it is safer in mercurial treatment, which rapidly accomplishes a noticeable result.

(*c*) Presence of other syphilitic lesions, and especially ulcerations of the larynx.

(*d*) Syphilitic antecedents, which date back five years or more.

The last two arguments are less decisive than the first two in establishing the diagnosis of syphilis.

5. Iodine and iodide of potassium act against pulmonary syphilis. Iodine can be given without fear in doubtful cases, since observations and experiments upon animals show that it retards the development of tuberculosis, and, to a certain extent, checks it. But mercury has greater activity against pulmonary syphilis, and hence deserves preference.

Treatment of Ozæna. Dr. W. Roth.—According to Roth's definition, ozæna is a chronic inflammatory process of the nasal mucous membrane with a tendency to atrophy, whereby the secretion of the glands suffers a change, in consequence of which it rapidly dries up into a firmly adherent membrane, and produces a stench through the development of micro-organisms, and through these, disorganization. The indications for treatment are as follows: 1, to soften the secretion, accelerate its expulsion, and prevent its retention; 2, to restore the hyperlastic or abnormally secreting membrane to its normal condition; 3, to remove the stench: 4, to remove the commencing dyscrasia. He endeavors to fulfill these indications with dry tamponade of lapis divinus, but he employs instead of the ordinary greased wad, a cotton charpie with ten per cent of iodoform. In the morning, he also insufflates into both nasal cavities, a lukewarm mixture of about 50 grammes, (12½ drams) composed of thymol 1-10 per cent, carbolic acid 1-5 to ½ per cent, or chlorate of potash ½ to 2 per cent, with an astringent (alum or tannin) 1 to 2 per cent. He claims that through this dusting, the entire nasal mucous membrane is touched. The fourth indication he carries out with general treatment.

Epilepsy caused by a foreign body in the ear. Dr. Küpper.—The patient was a strong girl, 18 years of age. She had, upon the advice of an over-wise lady friend, stuck a healing root into her ear, but did not withdraw it. Since that time she has had epileptic attacks. The ear-passage was filled with pus; after syringing it out, which caused violent vertigo, the external auditory meatus was seen to be full of polypi, which were extracted under deep narcosis: but in spite of this the attacks continued, and after further careful cleansing, a foreign body was perceived deeply in, which was also removed under narcosis —this proved to be the "root." Still, two epileptic attacks followed, then they ceased entirely, and with suit-

able after-treatment the patient was discharged in four weeks as cured.

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EDITORIAL.

GERMICIDES AND TUBERCULOSIS.

It can hardly be denied that the profession is daily losing confidence in the curative power of antiseptic or germicidal medication in pulmonary tuberculosis, and that the brilliant anticipations of Koch and his proselytes are by far less dazzling to-day than they were in March, 1882, the year of the "startling discovery."

It is not surprising that after the ætiological data given by the German mycologist in his fascinating theory, clinicians and experimenters, alike, should have enthusiastically grasped the idea so plausibly given, and at once proceeded to the vigorous application of its teachings. In fact, it was reasonable enough to expect, with some that, "once the particular parasite was found, upon whose presence in the organism the manifestations of this disease depended, nothing would be easier than to determine the drugs that were poisonous to it. And, these two factors being given, what would be more easy than the solution of the problem of cure? It would only be necessary to give the remedy in quantities sufficient to kill the parasite, and our patient

would be cured: provided, of course, that the microbe had not had time to produce organic lesions." But it appears the criterion of experience has decided against this mode of reasoning, and it is becoming every day more plain to all calm, reasonable and unprejudiced observers that, notwithstanding the continued activity of experimental therapeutists, whose microbicidal ingenuity we have been frequently called upon to admire during the last two years, and notwithstanding the fertility and boundless plenitude of the pharmacal agencies that have been pitted against this alleged parasitic disease—or, rather its formidable bacillus—it has not been rendered in the least less deadly. To cite a *few* of the more stylish methods in question, we would ask—have the corrosive sublimate medication of Binz, the antiseptic inhalations of Yeo, the iodoform and turpentine pulverizations of Semmola, and the novel and surprising methods of Fraenkel and Koch (of Kiel), and those of many other enthusiastic advocates of Germicidal therapeutics, made consumption less fatal? We can well answer with a recent and able writer (Sattler) '*no*,' decidedly no. We have tried antiseptic inhalations before, and found them of little avail, we tried them again and were disappointed. Injections of antiseptic solutions were even directly made into pulmonary tissue (Fraenkel) and others. Now we are experimenting with medicated chambers at San Remo and other health resorts; with what success time need not show. *We* must tremble lest in the eager hunt for specifics against bacilli we lose sight of that most important factor, the pre-disposition, the soil upon which the bacilli seem to flourish. We may kill the bacilli, and at the same time kill our patient, if we disregard this influential agent. Our treatment must be preventive, supporting, strengthening; it must be systematic. If we should express ourselves freely, taking into due consideration our present knowledge, we should say: "*Let the bacilli take care of themselves, let us take care of our patiens.*

As further evidence of our persisting inability to cope

successfully with this difficult problem—at least through our newly acquired knowledge of the bacillary associations of phthisis pulmonalis—we will cite the recent report of Messrs. Coze and Simon, Professors at the Medical School of Nancy, France (vide *Bulletin General de Therepeutique*, March number) who though firm believers in the Kochian theory, acknowledge, after a series of experiments, that, even from the experimental standpoint, the bacillus is invincible. These gentlemen undertook to investigate the value of the most reputed antiseptics in the prevention and cure of tuberculosis as experimentally induced in guinea pigs.

They divided their experiments into three series:

In the first, they endeavored to destroy the virulent or infective properties of the bacilli prior to their inoculation into the organism, by mixing a given quantity of phthisical sputa with an antiseptic agent. This mixed sputum they injected into guinea pigs. Bichromate of potash, corrosive sublimate, sulphuretted hydrogen, creasote and eucalyptol, were the germicides experimented with. All the animals, excepting those injected with the sputa, previously sterilized by the corrosive sublimate, were found tuberculous.

In the second series, the authors investigated the effect of a subcutaneous injection of an antiseptic used separately, though immediately after an inoculation with tuberculous sputa, and followed by hypodermic injections of germicides, daily used. Corrosive sublimate, eucalyptol, helenine, sodium benzoate, creasote, calcium-sulphide, hydrogen-sulphide and other substances were tried. After an approriate length of time, some of the animals experimented upon were killed and *they were found tuberculous;* the remainder died finally from the same cause, about three months after the inoculation.

In the third series, the tuberculous process was allowed to perfect its evolution and then efforts were made to arrest its progress by regularly administered antiseptic injections (of potash permanganate, sodium sulphide, thymol).

The medication proved an utter failure, all the inoculated pigs dying from the disease as if no counteracting agencies had been resorted to.

Though such evidence as this cannot rightly be regarded as final, still it proves to us that laboratory and bedside observation harmoniously decide, so far, against the curability of consumption by germicides.

WHY BISMUTH SOMETIMES CAUSES FETID BREATH.

Mr. William Reisert contributes an interesting study of this question in the April number of the *American Journal of Pharmacy*, and offers a plausible explanation of a phenomenon which has not failed to attract the attention of inquiring and observant practitioners. "Bismuth oxynitrate," he says, "when taken into the human system often imparts to the breath a very perceptible and disagreeable garlic-like odor, which is very annoying, not only to the person who has taken the salt, but particularly disagreeable to the persons with whom they may come in contact. This odor has been attributed by writers to be caused by impurities in the bismuth salt, such as arsenic and tellurium, and some have asserted that the chemically pure bismuth salt itself produces the odor." The author's personal investigations and interesting experiments trace the odor to the ingestion of tellurium, which, as is well known, is an element that occurs as an impurity in many samples of bismuth. The thoroughness of his investigations, which were mostly performed upon himself, give his conclusions special weight, and they probably will settle all further doubts upon this more curious than important question.

When the bismuth sesquioxide (prepared by dissolving the commercial substitue in chemically pure nitric acid, and precipitating in water) was administered, free from all impurities, to various persons under the same and under

different conditions as to dose and time, no garlic-like odor could be recognized in the breath.

To investigate the action of arsenic in the production of this odor in the breath, arsenious acid was taken by Mr. Reisert himself, until spmptoms of poisoning were induced, without the slightest production of the garlic odor in the breath—a result clearly eliminating this agent.

When tellurous oxide was taken, in five miligram doses, the peculiar and characteristic fetor was quickly made apparent. "Three doses were taken on May 8, 1883, at 4 and 7 o'clock, P. M. In fifteen minutes after the first dose the breath had a strong garlic-like odor, and in an hour a metallic taste was observed. An hour after the the second dose the urine and sweat had the garlic-like odor, which was also observed in the faeces on May 12. The metallic taste was observed for 72 hours, and the garlic-like odor in the urine 382 hours, in the sweat for 452 hours, in the faeces for 79 days, and in the breath it was still present, though very faintly, after 237 days.

In addition, Mr. Reisert has found that a quantity of tellurium sufficient to strongly impregnante the excreta may exist and still escape the most delicate chemical means at detection. From this failure to detect tellurium, most likely have arisen the many statements of its non-presence in commercial bismuth oxynitrate. The physiological test seems to be the most delicate, as it has been shown that in this way as little as 0.0000005 gm., or $\frac{1}{125000}$ grain of tellurous oxide, equal to 0.0000004 gm., or $\frac{1}{166000}$ of a grain of the metal may be detected.

These results, if considered in another light, are certainly instructive, and should *teach* us a lesson of caution before too strongly condemning the "theory of infinitesimal dilutions, etc." Not that we intend gladdening any Hahnemanian heart by this statement, but because we believe that a grain of truth is sometimes found at the bottom of a sea of delusion.

THE POLICY OF THE NEW STATE BOARD OF HEALTH OF LOUISIANA.

The attitude taken by the State Board of Health, as expressed in the series of resolutions published herewith, cannot fail to commend itself to all those who have an interest in our sanitary welfare. More liberal views could not have been entertained by any similar body in the country, and a greater proof of sincerity given than that found in the language of these resolutions. A policy so conciliatory and friendly towards our heretofore suspicious neighbors should, in the future, protect this community from those periodical outbursts of suspicion and hostility against the health authorities of this State, which, whether justified or not, always reacted so perniciously upon our mercantile interests. We earnestly hope, that through these liberal efforts the Board will secure the active co-operation and friendly spirit so essential to the prosperity and tranquility of the country.

Resolutions Adopted April 11, 1884.

Fully recognizing the wisdom of the quarantine laws of this State, the necessity of their rigid enforcement, and the great importance of securing for this board the confidence of the people throughout the valley of the Mississippi.

Resolved, That it is the fixed and irrevocable purpose of this board to apply quarantine restrictions against all ports where contagious or infectious diseases exist to the limit of the law, and, if necessary, it will advise total suspension of all communications with such ports while so infected

Resolved, That while this board will maintain its past prerogatives as a department of the State Government, it invokes the co-operation and confidence of any and all organizations at home and abroad that may be laboring to promote or protect the public health.

Resolved, That recognizing the great importance of securing the co-operation of the Board of Health of the States, and of other health associations, wherever situated, and establishing a condition of absolute confidence, it is hereby made the duty of the president and other officers of this board to extend to Boards of Health of other States, and other health associations unrestricted access to the records and health reports of this board, as well as the several quarantine stations as at the central office of this board at New Orleans; and it is hereby further made the duty of the president of this board to make public, from day to day, as may be necessary, the condition of the public health; and it is hereby specially required, in the event yellow fever should be introduced into this city or State, to communicate such fact, without delay, to the Exchanges and commercial bodies in New Orleans, and to the Boards of Health of other cities and States.

Resolved, That the co-operation of the several Exchanges and commercial bodies of this city is earnestly solicited in the sanitary work of this

board, and in the proper, intelligent and effective application of the sanitary and quarantine laws of this State.

Resolved, That while thus tendering to the other boards and health associations generally at home and abroad, the courtesies and confidence of this State Board of Health, we solicit the like consideration of the boards of health and health associations of other States, to the end that confidence may not only be reciprocal, but established on a firm and enduring basis.

Resolved, That while we are guarding with sleepless vigilance the outlets of the Mississippi River, we are not unmindful of the dangers that threaten us from the rear. In more than an instance yellow fever has been introduced into this city and State through the States of Texas and Mississippi. All things considered the least protected sections are the long lines of seacoast westward in Texas and eastward in the States of Mississippi, Alabama and Florida. The approaches from without to this State are through Lake Borgne, the Mississippi River and Berwick's Bay. These we will guard with sleepless vigilance, and while we are doing that, we call upon the authorities of the State of Texas, Mississippi, Alabama and Florida to exercise a like effective control over the seacoast in those States.

Resolved, That having thus declared our purposes and the policy of this Board, it is expected that no credence will be given at home or abroad to any reports respecting the state of the public health in this city or State that are not sanctioned or verified by the action of this board, or its duly appointed officers.

President, Dr. Joseph Holt; secretary, Dr. S. S. Herrick; members, Drs. C. Faget, L. H. Von Gohren, L. F. Salomon, S. R. Olliphant, C. E. Kells, and Messrs. W. M. Smallwood, J. A. Shakspeare and Joseph Kohn.

Correspondence.

Editors of the New Orleans Medical and Surgical Journal.

The *Medical and Surgical Reporter* of March, 8th, 1884, proclaims that "an esteemed correspondent claims that Professor Bezin Thomson, of Nashville was the first advocate of the germ theory of disease." Your correspondent would not detract one iota from the merits of the illustrious dead, but with a full appreciation of the sentiment that "honor is given to whom honor is due" he essays to claim for Professor J. L. Riddell, formerly of the Medical Department of the University of Louisiana, *priority* of promulgating that "the matter of contagion is of an organized nature." The following bibliographical notice in the New Orleans Medical and Surgical Journal for July, 1850, indicates in eloquent terms the views held by that distin-

guished scientist, regarding the "nature of miasm and contagion" in the year 1836, 48 years ago:

A Memoir on the nature of Miasm and Contagion. By John L. Riddell, Professor of Chemistry in the University of Louisiana.

This memoir of twenty pages was read before the *Medical Society of Cincinnati* in 1836, and from the nature of the subjects examined, must necessarily be speculative in its character. The author candidly acknowledges that the views advocated in this pamphlet, were suggested to his mind at various times and by various writers. The reader may gather something of the aim and scope of Professor R.'s remarks by the following bold declaration:

"I assume that the matter of contagion is of an *organized* nature, and consequently subject to the same general laws, which regulate the origin, increase modes of existence, and duration of animal or vegetable bodies. I assume also, that the same is true of the morbific miasms which are exhaled from putrid marshes, and of the occult cause of cholera and other epidemic diseases."

It would appear from the above paragraph that more had been assumed than could be demonstrated: but let us not be too fast—hear before you judge. Having premised thus much, Dr. R., then proceeds to point out the most prominent points of contrast between organized and inorganic bodies: the former possess, he says, forms more or less rounded, and never grow beyond certain limits: minerals on the contrary, and other inorganic bodies, hold no determinate form, except in the case of crystals and without any assignable limits as regards size. The composition of organized bodies is more complete than that of inorganic matter. The author then makes some philosophical observations on the mode of increase of inorganic and organized matter, and here he displays at once a profound knowledge of his fortunate science—Chemistry and Physiology—two departments of medicine which are

cultivated at the present day with great zeal and great success.

Prof. R. claims for the corpuscles which cause malarious and infectious maladies, the rank of belonging to the lower confines of organic nature; and he maintains that these organic corpuscles bear the same relation to animals and sentient beings, as do the *fungi* and *algæ* to the more perfect tribes of vegetables.

He seeks to strengthen his theory by the following facts which cannot at present be refuted:

"So far as investigation has been carried, this proposition is fairly established: that animal or vegetable food is essential to every subject of the animal kingdom. It must, therefore, follow, if the proposition be universally true, that the *infusoria* feed on organic substances; and it is probable, that many of them subsist on corpuscles more minute than themselves. Some of them are known, indeed to be carnivorous. To adduce an instance, Goez has seen the *trichoda cimex*, a bristly, miscroscopic creature, of an oval form, seize upon and devour the lesser animalcules with great voraciousness."

Prof. R. believes the remote cause of cholera may lurk unappreciated in the atmosphere; and he states a well known fact that a minute quantity of small-pox virus—altogether too much attenuated for detection, may develop a disease that will infect thousands. This idea, although promulgated several years since, is now entertained by many able medical men of the present day; and the Professor is clearly entitled to all the merit of being among the *first to advocate the animalcular origin* of *epidemics*.

After displaying much research and strengthening his positions by analogical reasoning, he concludes this original paper in the following words:

"The doctrine I have espoused might be elucidated still farther, if need be, by analogies from the vegetable kingdom. Perhaps nearly all the true diseases to which plants are liable, arise from encroachment by parasitic fungi and lichens. The rust which infects the culms of wheat, was

found by Sir James E. Smith, to consist of highly organized miscroscopic fungi. We hardly know a single species of the more perfect plants, on whose mature leaves, may not at times by careful examination, be discovered some minute and obscure species of this order; and I question much whether a tree can be found in the forest on whose bark cannot be seen the spreading and parti-colored lichen.

"In like manner do parasitic growths affect animal bodies. Do not warts, cancers, sarcomatous tumors, hydatids and intestinal worms possess an animal vitality, insulated from that of the individual in whose body they occur? For myself, I cannot but regard them as holding about the same relation to the animal system as the parasitic fungi and lichens do to the more completely organized vegetables."

The majority of medical writers, now living, have expressed their belief in the existence of terrene and paludal emanations, which they suppose to be of gaseous and inorganic nature. No doubt it will be often repeated, that it is unphilosophical to recognize vital corpuscles, as morbific agents, before they have been demonstrated to the sight.

"Show us your corpuscles or animalcules before you call on us to believe in their existence," is the reply, it may be said, that we have infinity on either hand; infinite expansion, and infinite minuteness. The range of man's vision, though aided by all the resources of art, is but a point of an infinite line. As well might the skeptic assert, that there were no worlds, no stars, no globes of matter save what his feeble vision described, as that the mysterious attributes of life could not attach to beings invisibly small."

"Had we space it would afford us pleasure to notice many of the views and arguments contained in this ingenious monograph."

* * * * * * *

In the same journal, under the head of "Miscellaneous Medical Intelligence," page 530, of the January number,

1852, is a contribution by Prof. Riddell, relating to living organisms in the waters of New Orleans and its vicinity, and which includes matters pertaining to histology, illustrated by lithographic figures. It is well worth perusal at the present day. By reference to a lecture in relation to organic matter in the air, delivered by him before his class, in 1851, it will be seen that Riddell anticipated Tyndall more than a quarter of a century, in regard to organic matter in the atmosphere. I cannot forbear to quote the following in relating to the diffusion of microscopic germs in the air (New Orleans Medical and Surgical journal, for January, 1852, page 478): "Being organized particles, they could not be in themselves volatile, and they must have been lifted into the air by some extrinsic agency; and, in my opinion, the bouyant agent is the vapor of water, which, in ascending, as the water evaporates, must have sufficient impetus to raise to a moderate height the little bodies in question, which, on an average, are less than the thirty-thousandth part of an inch in diameter. In further elucidations I had no difficulty in demonstrating the abundant existence of similar minute organized germs in the air. Upon slowly passing a stream of air through pure distilled water, some few would be retained by the water, discoverable by the microscope. By first passing the air through a heated tube, so as by partial disorganization to overcome their repulsion for water, then sending the current through water, a much more abundant deposit of them will be apparent. Wetting the dust which subsides upon furniture, and subjecting it to microscopic examination, similar organized motes are to be seen."

Prof. Riddell contrived the binocular microscope, if I remember correctly, and made the fact known to the scientific world, through *Silliman's Journal*, in 1851.[1] He subsequently, in 1852, made an improvement and published an account thereof, with illustrations, in the New Orleans Medical Journal, for November, 1853.

In 1847, Prof. Riddell devised a plan, "for determining the relative amount of organized matter in the air (New

Orleans Medical and Surgical Journal, for September, 1850). Riddell was naturally endowed with a superior intellect, and as a scientist and philosopher, equal in erudition to his contemporaries, and perhaps in advance of them. He was a hard worker, and apparently indefatigable. There is much in his life and labors that would interest many of the profession, especially members of his classes. Memoirs of this distinguished gentleman should be gathered together, written out with care and published. It is the duty of some one of his class to undertake it. I am acquainted with but few of them, and were I permitted, to be somewhat invidious, would suggest Prof. Stanford E. Chaillé as a proper person and best qualified to do it.

ROBT. B. S. HARGIS.

Pensacola, Fla.

Reviews and Book-Notices.

Transactions of the American Surgical Association. Vol. I. Edited by J. Ewing Mears, M. D., Recorder of the Association, Philadelphia: Printed for the Association, and for sale by Presley Blakiston, Son & Co.

We are pleased to chronicle the appearance of this valuable work, containing the transactions of the Association from September, 1880, to June, 1883. Dr. Mears has faithfully and meritoriously carried out the task assigned him.

Want of space, above, prevents us from giving resumes of the thirty-two valuable articles, with the interesting discussions thereon. We can only without being invidious mention a few. Among the many, we notice: "The Influence of Operations upon the Prolongation of Life and Permanent Recovery in Carcinoma of the breast," by Samuel W. Gross, A. M., M. D. After entering fully

into statistical details, Dr. Gross arrives at the conclusion that surgical interference tends to retard the progress of the disease, that local reproductions do not militate against a permanent recovery, provided they are excised early, and that a lapse of three years after operation without a return of the disease, almost without exception, renders the patient safe. Of course the necessity of early intervention is insisted upon, as well as the essential details of the operation.

Dr. W. T. Briggs, in an article on "The Antiseptic Treatment of Wounds," fully discusses this subject in an unprejudiced manner and while not denying the value of antisepsis, at the same time thinks that no one method is superior to another, the aim of good surgery being to prevent, if possible, and control inflammation, inasmuch as "all wound accidents are the result, either directly or indirectly, of destructive inflammation."

In a paper upon "The use of the Trephine in Traumatic Empyema Associated with Thoracic Fistula," Prof. T. G. Richardson reports several cases and gives the details of, and indications for, this operation as performed by the late Warren Stone, Sr., M. D. of New Orleans, to whom credit is given for having been the first to perform this or any other method of resection of the rib for empyema. Prof. Richardson has operated upon a number of cases with satisfactory results. The advantages of this procedure over all others in the peculiar conditions refered to are clearly set forth in the paper.

Prof. S. A. Gross reports a very interesting case of "Nephrectomy for Medullary Carcinoma, and Partial Choleo-cystectomy for Calculus, in the Same Subject," and discusses the advisability of extirpation of the kidney for malignant growth. He believes, that while the records of cases are too few upon which to base a positive conclusion, still, inasmuch as the disease is necessarily fatal in a very short time, the results, as a whole, would lead us to adopt operative measures with a probability of lessening mortality or at least prolonging life.

We regret that we are unable to devote more space to the numerous other articles replete with interest which fill the book. Suffice it to say, the American Surgical Association can well feel proud of the work which has been accomplished by its members, and that this volume will stand as a monument to their labors.

Opera Minora. A Collection of Essays, Articles, Lectures and Addresses, from 1866 to 1882, inclusive. By Edward C. Seguin, M. D., Clinical Professor of Diseases of the Mind and Nervous System, in the College of Physicians and Surgeons, New York, etc [New York: G. P. Putnam's Sons, 27 and 29 West Twenty-third street, 1884; 8vo., pp. 687. New Orleans: Armand Hawkins, 169½ Canal street. Price, $5.00.

This volume embodies a collection of the miscellaneous or "minor writings," as they are modestly styled, of an author whose name has long since been familiar to the student of American medical literature as that of a neurologist of distinguished ability, unusual fertility, and above all, great accuracy, and originality in observation.

The matter presented in these pages has already paid the tribute which is expected of celebrity—criticism—and on this account it can readily forego an ordeal which would prove, after all, a pleasing one. The editor, Dr. Amidon, has introduced the earliest writings of the author, *i. e.*, those on medical thermometry, which first popularized the use of the clinical thermometer in this country. Dr. Seguin's Studies on Aphasia, so thorough and interesting; his original description of Tetanoid Paraplegia, which might be justly called Seguin's disease; his famous contributions to the study of localized cerebral lesions; all his lectures on localization of spinal and cerebral diseases, as delivered before the College of Physicians and Surgeons of New York, and his various contributions to the rational therapeutics of the nervous system, form the bulk of the book. The lectures on localization of spinal and

cerebral lesions are deeply interesting, and will prove of great value to those who did not have an opportunity of reading them at the time of their first appearance, in 1877-78. In fact, the lessons herein enclosed constitute in themselves a valuable treatise on the diseases of the nervous system, which cannot fail to prove a valuable acquisition even to those who were so fortunate as to read them in their fragmentary form. We believe that nowhere can a clearer elementary insight be gained into the study of cerebro-spinal localization than in Dr. Seguin's lectures; and this greater aptitude for instruction which his lessons possess, we believe, can be readily accounted for by the perspicuity of his language, the definiteness of his expressions, which are rarely, if ever, tainted with offensive technological pedantries, and because of his thorough training as an investigator, writer and teacher.

We cannot end this notice without deploring the exceeding bad taste of the publishers, who have marred much of our pleasure in examining the work by the annoyance and delay occasioned by its uncut pages.

A Manual of Obstetrics. By A. F. A. King, M. D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., and in the University of Vermont, etc., with Fifty-nine Illustrations. Second Edition. Philadelphia: Henry C. Lea's Son & Co., 1884. 8vo. p. 338. Price $1 50. [New Orleans, Armand Hawkins, 196½ Canal.]

"The chief purpose of this book is to present, in an easily intelligible form, such an outline of the rudiments and essentials of Obstetric Science as may constitute a good ground-work for the student at the beginning of his obstetric studies." Confessedly a compilation from more elaborate text books and especially the more recent treaties of Leishman, Playfair and Lusk, its pretentions are limited purely to its value as a time-saver to the student and practitioner, i. e., a manual. The book was origin-

ally designed for the use of the author's students at the Columbian and Vermont Universities, where he is teacher, and no doubt but that the work is an excellent condensation of Dr. King's favorite authors, the heavier text-books just mentioned.

Even a cursory survey of the field embraced in this little work convinces one that Dr. King does really know what constitutes the ground work of Obstetric Science. Though nothing can be said as regards the originality of the work, either in the text or illustrations, it must be acknowledged that it is just what it pretends to be; a sound guide, a portable epitome, a work in which only indispensable matter has been presented, leaving out all padding and chaff and in which the student will find pure wheat or condensed nutriment at little expense or unnecessary mental assimilation.

Eczema and its Management. A Practical Treatise Based on the study of Three Thousand Cases of the Disease. By L. Duncan Bulkley, A. M., M. D., Physician to the New York Skin and Cancer Hospital, etc., etc. Second Edition. New York: G. P. Putnam's Sons. New Orleans: Armand Hawkins, 8vo. cloth, p. 344. [Price $3 00.]

Dr. Bulkley is so well known to the profession, and the first edition of this work was so well received that the present edition needs only to be mentioned to find its way into the hands of the general practitioner for whose use it is specially intended. The author's acknowledged position as a dermatologist and his extended experience in the treatment of eczema and other cutaneous diseases entitle him to recognition as authority upon the subject under consideration; and this, coupled with the fact that the work is founded upon his own practical experience, makes it a most valuable contribution. The clearness and force of Dr. Bulkley's style are such that none can read the book without profit and a better understanding of the treatment of eczema, one of the most difficult diseases, in some of its

phases, which the practitioner is called upon to treat; and we are satisfied that with a careful study of this book, many cases which have apparently baffled the medical attendant, may be treated more intelligently and with much more satisfactory results, than can be obtained through mere routine treatment. The book has been thoroughly revised and such alterations and additions made as to fully embrace all that is now known of the disease under consideration, and we cordially recommend it to the profession as thoroughly practical and instructive.

A chapter is added containing a number of formulæ in use by the author, which will serve as a hint in prescribing.

Year Books of Medical Progress.

A Year Book of Therapeutics, for 1883. Edited by Royal W. Amidon, M. D.

A Year Book of Surgery, for 1883. Edited by Charles H. Knight, M. D. New York: G. P. Putnam's Sons; 8vo., cloth. [For sale in New Orleans by Armand Hawkins, 169½ Canal street. Price, $1 50 each.]

This is a new departure in medical literature, and one deserving of the encouragement and support of the profession. We find in these two books before us all of importance that has been accomplished during the past year in the rapid progress being made in surgery and therapeutics. The authors of both works have faithfully laid down every improvement of value which has been added to our knowledge, so that we have given to us a complete summary of all that has been done. To those whose supply of medical journals is limited, and who, in the perusal of their weekly or monthly medical literature, may have failed to appreciate progress made, particularly in abdominal surgery and surgery of the neck, the *Year Book of Surgery* will be particularly welcome as furnishing all desired information upon these subjects, which are now engaging the attention of surgeons throughout the civilized world.

In regard to the advances made in therapeutics, Dr.

Amidon very properly says that, "the advances of therapeutics during the past year seem to lack the stability one would wish for what each year is becoming a more exact science. * * Scores of new drugs have been forced on our attention, but the presentations have been made not by the pains-taking experimenter, but by our *too* enterprising wholesale druggists, whose multifarious pharmaceutical preparations and shot-gun formulæ are gradually pushing extempore prescribing and the *doctors' individuality* to the wall." This has the ring of the true metal. We cordially endorse every word here quoted, and trust that the day is not far distant when physicians will appreciate the importance of discountenancing the present methods of manufacturers, and assert their own independence. We have not the space to mention the number of experiments relegating to their proper places many of the new remedies which have been forced upon our attention, or the outcome of experimental researches, whereby substantial knowledge has been obtained of the real therapeutic value of numerous agents, the proper utility of new drugs, and additional applications for many of those which have long been in use. Suffice it to say, that the author treats his subject impartially and fairly, giving credit where credit is due, and placing in their proper places the new remedies which have been deemed worthy of notice.

We commend both works to those who are desirous of keeping pace with the times, as giving the results of the latest researches in these two branches of medical science.

Legal Medicine, Vol. II. By Charles Meynott Tidy, M. B., F. C. S., Master of Surgery, Professor of Chemistry and of Forensic Medicine at the London Hospital, etc., etc. Philadelphia: Henry C. Lea's Son & Co., 1884. New Orleans: Armand Hawkins, 196½ Canal St. 8vo. sheep; pp 505. [Price $7.]

This is the second volume of Professor Tidy's very interesting and instructive work, comprising the lectures delivered at the London Hospital during the Summer Ses-

sion of 1882. The first four chapters are devoted to the consideration of the sexual relationships in their medico-legal aspects, and the remaining seven to the various forms of death from asphyxia. The subjects treated of are discussed fully and intelligently, making the book entertaining while instructive, and rendering it valuable, as a book of reference, to those who may be called upon to testify in courts of justice. To the old practitioner, who desires to keep pace with medico-legal progress, as well as to the beginner and student desirous of informing themselves in legal medicine, we recommend this work as meeting all requirements. The arrangement of the book is excellent. The illustrative cases, instead of being interposed in the text, thus destroying its continuity, are placed at the ends of the different chapters, and reference made to them by number.

The press-work is gotten up in the usual good style of the Leas.

Notes on the Opium Habit. By Asa P. Meylert, M. D. G. P. Putnam's Sons. New York: 1884.

This little pamphlet of thirty-six pages gives a clear and concise exposition of the features of the terrible opium habit. The author illustrates his subject with extracts from several cases; he slightly touches upon the physiological action and evil effects of opium, and concludes with plain and practical directions for treatment. The paper is interesting and will repay perusal. A. McS.

We have received a monograph on "Mental Incapacity," by Dr. Manuel Adolfo Olaechea, of Montevideo; also files of "La Gaceta de Medicina y Farmacia" of Montevideo, edited by the same gentleman. In the latter we find a lengthy discussion, extending through several numbers, concerning the civil capacity of one Dr Luis Manuel Velazco, who discharged the duties of Judicial Magistrate. Dr. Velazco, it appears, suffered from chronic softening

of the brain, and much industry and learning were employed in trying to demonstrate his incapacity to properly discharge the grave duties of his office. The monograph of Dr. Olaechea treats of a case of violent contusion of the cranium, which gave rise to serious mental disturbance, in consequence of which it was contested that the patient was deprived of his testamentary capacity. Dr. Olaechea discussed the subject very fully and learnedly.

A. McS.

Louisiana State Board of Health.

At the meeting of the State Board of Health, held April 25, Dr. Joseph Holt, the recently elected President of the Board, delivered the following address:

Gentlemen of the Louisiana State Board of Health:

Public welfare outweighs private interest. This is not only an organic law of society, but the very core around which all law and all association are compacted, and from which emanates the cohesive force which binds man in communities and nations. The recognition of this law is instinctive.

Whether as civilian or soldier, a cheerful readiness to obey is the current stamp of manhood, the test of true citizenship.

We are assembled as members of the Louisiana State Board of Health, not of ourselves; for as a matter of selection we would have avoided rather than sought positions so responsible, so onerous, burdened with solicitude, and offering as reward little more than the consciousness of duty performed.

The people of this city and the authorities of this State have, of their own advice and pleasure, selected us the bearers of this burden, the history of which is appalling to selfish prudence, and must awaken in the wisest serious hesitancy.

The alternatives have been squarely presented, and we have been compelled to accept with all that acceptance implies, or to shirk a public duty.

The time for hesitation has passed.

We are committed to this work, and are resolved to push it with all the energy of which we are capabe.

A warrantable prudence, however, demands that we shall definitely understand and announce the exact nature and limit of the responsibility assumed: that we shall make a clear statement of our case, and stand on record as to our position.

Resolutions indicating the policy of this board were adopted at our organization. These have been broadly promulgated, and are the foundation on which we build.

As sworn officers we will maintain the prerogatives of the board as a department of State government, and will resent instantly an encroachment from any quarter.

We italicize this resolve.

The hearty co-operation of the Boards of Health of the States, and of all health associations, is an imperative duty common to all. Antagonisms neutralize effort; so the good which would be accomplished fails; and in the turmoil of personal disagreement we forget our mission, and the people have to bear the brunt. When these bodies foster ill will they betray the public trust.

A calm and unswerving adherence to right is heroic, but the fomentor of discord is a traitor to sanitary reform, and is himself a public enemy, it matters not what station he may occupy or position assume.

We recognize in the Auxiliary Sanitary Association of this city an organized system of help in the great work of municipal sanitation. If we can but keep in mind the higher interest of the community as the rule of our guidance, this association must be to us a right arm, an engine of power. It is simply an expression or concentrated effort on the part of a people determined to help themselves.

But let us return to the discussion of our responsibilties.

What have we undertaken and what is expected of us to do? Let us grapple at once the main issue, the paramount object of this board.

To prevent the appearance of yellow fever in New Orleans is the master task assigned us. How are we to do it? What is yellow fever? From whence does it come?

Now, gentlemen, we stand face to face with our problem, and must solve it or abandon the fight! There must be no mincing of words, or deference to popular opinion. We are not dealing with men or the opinions of men, but with a mystery in nature: one of the hidden ways of God. It matters not what men may think or assume, we are dealing with nature and with fact. The savage in his terror shoots

his arrows at the face of the sun. Presently the shadow of eclipse passes off, and he says "I did it."

Let us lay it down here as recorded, gentlemen, that this board is strictly practical. While accepting the teachings of science, we are not to array ourselves as partisans in the contests of pathological investigators; in discussions of the beneficent influence of filth upon this community; the germ theory, or any other question in dispute.

These subjects of discussion and dissension are properly a fighting ground for the doctors, for investigating commissions, the press, and a host of others, but not for us. The law defines our field of action.

From the vast accumulations of experience, both here and abroad, there are certain conclusions we as as a Board of Health may accept as facts sufficient to cover the case as we have to deal with it.

The first conclusion is remarkable. According to the testimony of all investigators and travelers in the West Indies, Mexico and South America, there is no spot where yellow fever originates. It is invariably brought from some other place. Therefore, yellow fever never orignates, but is always brought from somewhere else.

But what is this deadly agent with which we have to deal? How shall we tell of it? And how shall we locate its essential part to bring it within the grasp of thought?

In order to take the next step, we must give to this subtle something a definition above the reach of quibbling criticism. Yellow fever is due to a specific poison, the existence of which is known only as manifested in man. If tangible, imponderable, unrecognizable to any of the senses, we have no positive knowledge of the essential nature of this poison. Every effort to prevent its appearance and to limit its spread must therefore be purely experimental.

We next declare that wherever originated, it is communicable, and can be conveyed in the recognized methods along highways of commerce by ships and other carriers of fomites.

In regard to the transmission of yellow fever, it is sometimes impossible to determine the boundary line between contagion, strictly speaking, and infection. There can possibly exist but two scources of its appearance in New Orleans. It must be recently imported or it must develop locally. Being transmissible, it can certainly be imported.

Before touching the next point let us call to mind that men hold their opinions concerning the origin and spread

of yellow fever as tenaciously and with as little tolerance as they do their religious creeds. A difference of opinion is heresy. There are those, and I announce myself as of their number, who hold that it is possible, and experience abundantly justifies the declaration, that yellow fever may be called into activity in New Orleans without recent importation, or importation at all, so far as we are able to decide.

I have myself seen this disease appear here under circumstances which baffled every effort of attending physicians and boards of health with their corps of sanitary police to detect the slightest clew to importation.

To declare such a case imported is simply an assertion not warranted by evidence. An instance of "*brought from somewhere else.*"

In making this declaration I cast no slight nor injurious censure upon this city. New Orleans will never be quarantined against unless infected: but if infected, will be quarantined against, it matters not whence the disease.

All epidemic diseases have their cycles—seasons of intense activity and periods of remission or of absolute rest.

A city may go for years without an invasion, even though cases may have occurred in the meantime; and presently, from evident importation or from an unknown source, an epidemic breaks out and ravages a community. Witness scarlet fever, diphtheria, small-pox, measles.

How easy to understand that we may go four years and keep out infected ships, and keep this city clean and escape yellow fever, and hand over this Board of Health to others. Our successors, even more vigilant and exacting, may unfortunately strike one of these years of intense epidemic disposition, when from some direction, probably evasion of quarantine, one case may occur, and then an explosion, like that of 1878.

In the whole of this business, gentlemen, there is an element of what is called luck, good or bad, that will exalt one as a minister of grace, and cast down another into the grave, while both may be equally deserving.

Thus it is, if misfortune, passing us, shall overtake our successors, we must stand upon this record and assuage the bitterness of their defeat rather than make of their calamity a pabulum to fatten our pride. Conscience will teach us the limit of our deserving.

When the river commissions regulate the rainfall in the valley of the Mississippi, and prevent years of exceptional

high water and disaster, boards of health will control this phenomenon of occasional intense epidemic readiness.

What is the conclusion of the whole matter?

If yellow fever, to exist here, must be imported or must originate, there are two possible avenues of danger.

It matters not what our individual opinion; it is the bounden duty of this board to guard every *possible* avenue of danger.

We must prosecute quarantine with a rigor, resorting even to non-intercourse, as though we have no faith in any other measure; while, on the other hand, we must urge municipal sanitation as though we doubted the absolute efficiency of quarantine.

It is suggestive that in certain cities formerly devastated by this pestilence, the scourge has ceased coincidently with an improved sanitary system—Boston, New York, Baltimore, Philadelphia, Charleston, S. C. Simple coincidence does not repeat itself five times. Absolute non-intercourse with infected ports can furnish the only positive guarantee against importation.

Quarantine alone, however rigidly enforced, is subject to two risks: First—The established fact that ships once infected and after that subjected to repeated cleanings, going into Northern waters, and even changing the crew, years afterward, coming again into tropical regions, have developed the disease on the high seas without having touched at a tropical port. Such a ship, having passed quarantine, may develop yellow fever at our wharf.

The second risk is evasion, or "running the blockade," an experience so common in the cases of besieged cities and blockaded ports.

In the history of war no city or port was ever so securely invested but that dispatches, and even goods and food, were run through.

Let the people of this city and State exact of us all that may be justly required. We promise it; but we promise no more. We promise to do all that energy and perseverance can accomplish, to the utmost extent of the means at our command. This is the limit of our responsibility.

However successful we may be: whatever measure adopt or course pursue, we must carefully avoid giving directly or inferentially assurances of our ability to prevent any particular disease.

The people are quick to put their faith and hope in anything which promises to control. However coincident,

they are ready to conclude the relation of cause and effect. We must remember the reliance finally established in carbolic acid, and the terrible consternation that ensued upon the demonstration of its worthlessness.

While quarantine is theoretically protective, in practice, and tested by the exactions of scientific investigation, it is still an experiment, its conclusions not yet absolutely established. We must secure the full benefit offered by its rigid enforcement.

This matter of responsibility, gentlemen, does not rest solely upon the Board of Health. There are two equally liable: The board on one hand and the city and State on the other.

Examining the other side, what is the actual relation that exists?

The press and the people have welcomed us most kindly, and have spoken in terms of great consideration, but have not hesitated to tell us: "This city must be kept healthy. This great work has been imposed upon you, and you are expected to perform it."

Here are the figures: In a district of 57,000 people we have two sanitary officers. In the Second District, population 45,000, are two officers. In the Third, 45,000 people, two officers. In the Fourth District, population 38,000, two officers. In Algiers, covering a vast area, 9,000 people, one officer. In the Sixth and Seventh Districts, population 22,000, scattered over several square miles, is one officer. Pay of officers, $50 per month; annual allowance to Board of Health from State, a resolution of thanks.

But for the scanty and contested pittance gleaned from quarantine and the yet smaller mite from the office of Recorder of Marriages, Births and Deaths, we would be absolutely penniless.

Our city and State are become to us as Egyptian taskmasters: "Go, therefore, now and work, for there shall no straw be given you, yet shall ye deliver the tale of bricks." We have the strongest historical assurance that it was something more than coincidence when pestilence overtook these same taskmasters.

When we undertake to accomplish a $50,000 work with $6000, and the work of eighty men with ten men, without horse or cart, this is a responsibility which rests upon the city of New Orleans and the State of Louisiana.

We entertain neither doubt nor fear; but will move

steadily on in the line of our appointed work, and do with our limited means the best we can.

While some delight to bark and bite, for 'tis their nature to, we shall command the confidence and respect of every honest mind at home and abroad, and our consciences will approve our deeds.

On motion of Mr. Smallwood, the address was unanimously endorsed by the board.

State Legislation on the Teaching of Physiology and Hygiene in the Public Schools.

A Petition to the General Assembly of the State of Louisiana respectfully submitted by the New Orleans Auxiliary Sanitary Association and other organizations:

The attention of the General Assembly of the State of Louisiana is respectfully called to, and its favorable consideration is earnestly solicited in behalf of the published petition, to your honorable body, presented conjointly by the Louisiana State Medical Society, the Orleans Parish Medical Society and the New Orleans Medical and Surgical Association,* as far as said published petition advocates (as is done on pp. 8, 9, which are hereby made a part of the present petition,)† the enactment of a law favoring "sanitary instruction," by requiring the teaching of the elements of Physiology and Hygiene in all public schools. The enactment of such a law was suggested by the State Board of Health in its annual report for 1875; it has been advocated by the New Orleans Auxiliary Sanitary Association ever since its organization: it has been earnestly favored by the recently organized Louisiana Educational Society: it is sought for by the Louisiana Branch of the Woman's Christian Temperance Union: it has been anticipated in New Orleans by a resolution adopted March 5, 1884, by its Board of School Directors; and such a law would be heartily approved by all intelligent citizens who have given serious thought to the subject.

In order to aid wise legislation, the laws enacted by other States are herewith cited as instructive precedents and useful guides.

*Also endorsed by the Caddo Parish Medical Society and, as is believed, by the Shreveport Medical Society.

†See p. 944, June No. 1883, New Orleans Medical and Surgical Journal.

In 1850 Massachusetts enacted the following law:

"SECTION 1. Physiology and Hygiene shall hereafter be taught in all the public schools of the State, in all cases in which the School Board shall deem it expedient.

SECTION 2. All school teachers shall hereafter be examined in their knowledge of the elementary principles of Physiology and Hygiene and in their ability to give instruction in the same.

SECTION 3. This act shall take effect on and after the ——day of ————, 18——." .

In 1865 and 1869, Indiana enacted and amended its School Laws, which require that every teacher shall pass a satisfactory examination on "physiology" (among other specified studies), and that the trustees of the common schools "shall provide" to have "physiology" taught in said schools.

In 1882 Vermont enacted the following:

"No. 20. AN ACT RELATING TO THE STUDY OF PHYSIOLOGY AND HYGIENE IN THE PUBLIC SCHOOLS.

It is hereby enacted, etc.:

SECTION 1. Section 558, chapter 33, of the revised laws, is hereby amended so as to read as follows: One or more schools shall be maintained in each town for the instruction of the young in good behavior, reading, writing, spelling, English grammar, geography, arithmetic, free-hand drawing, history, and Constitution of the United States, and *elementary physiology and hygiene, which shall give special* prominence to the effects of alcoholic drinks, stimulants and narcotics upon the human system. Text-book committees shall select and recommend a text-book on elementary physiology and hygiene for use in their respective towns.

SEC. 2. No teacher shall be required to pass an examination in physiology and hygiene before November 1, 1883.

Approved November 13, 1882."

In 1883 Michigan enacted the following:

"CHAPTER III.

SECTION 15. The district board shall specify the studies to be pursued in the schools of the district: *Provided always*, that provision shall be made for instructing all pupils in every school in physiology and hygiene, with *special reference to the effects of alcoholic drinks, stimulants and narcotics generally upon the human system.*

CHAPTER XII.

SECTION 4. No certificate shall be granted to any person to teach in the schools of Michigan who shall not, after September 1, 1884, pass a satisfactory examination in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants and narcotics, upon the human system."

In 1883 New Hampshire took action, and the following is the full text of the educational law which passed the Legislature without opposition:

"An Act to Amend Sections 4, 5 and 10 of Chapter 89 of the General Laws.

Be it enacted by the Senate and House of Representatives in General Court convened:

Section 1. That section 4 of chapter 89 of the General Laws be, and is so amended as to read as follows:

Teachers of common schools shall be examined in reading, spelling, writing, English grammar, arithmetic, geography, and the elements of history, and in *physiology and hygiene, with special* reference to the effects of alcoholic drinks, stimulants and narcotics, upon the human system; and in other branches usually taught in said schools.

Sec. 3. That section 10 of chapter 89 of the General Laws be, and is so amended as to read as follows:

The school committee may prescribe suitable rules and regulations for the attendance on, management, studies, classifications and discipline of the schools whenever they deem the same necessary: *Provided*, that physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants and narcotics, upon the human system, shall be prescribed in all schools sufficiently advanced: and said regulations and rules, being recorded by the town clerk and a copy thereof given to the teachers and read in the schools, shall be binding upon scholars and teachers.

Sec. 4. This act shall take effect from and after March 1, 1884."

In 1884 New York enacted the following law:

"Section 1. Provision shall be made by the proper local school authorities for instructing all pupils, in all schools supported by public money or under State control, in *physiology and* hygiene *with special* reference to the effects of alcoholic drinks, stimulants and narcotics upon the human system.

Sec. 2. No certificate shall be granted any person to teach in the public school of the State of New York, after the first day of January, 1885, who has not passed a satisfactory examination in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants and narcotics upon the human system."*

Respecting the law which it is hoped will be enacted, the following suggestions are respectfully submitted to the General Assembly of Louisiana: Hygiene necessarily teaches the evil results of all the preventable causes of disease and death and therefore of intemperance; but it is well known to hygienists that while intemperance does cause a very large proportion of the avoidable suffering, disease and death which afflict mankind, yet that there are other causes, now ill appreciated by the people, of as much importance as is intemperance. Hence, while there is no objection to a law which may emphasize the need for public instruction as to the evils of intemperance, there is serious objection to any law which may imply (as the laws of Vermont, Michigan, New Hampshire and New York do imply), that intemperance is so much the most important of all sanitary evils that instruction in

*Assurance was given, April 16th, 1884, by the Secretary of the Kentucky State Board of Health, that Kentucky was about to enact a law requiring the study of hygiene in the public schools.

hygiene may be even limited to this single cause of disease and death. Therefore objection is made to the above laws as respects the words "*with special reference to.*" However, there could be no objection to a law, which would require "*the teaching of elementary physiology and hygiene; and therewith special instruction as to the effects of alcoholic drinks and generally of stimulants, anæsthetics and narcotics.*"

It is further suggested, that the law should require, that the school text-books on physiology and hygiene should receive, before their introduction into the public schools, the approval of the State Board of Health; and that the law should provide for its own enforcement.

The above petition of the New Orleans Auxiliary Sanitary Association, prepared by Prof. Stanford E. Chaillé, M. D., a member of its Executive Committee, has also received the endorsement of the Board of Health of the State of Louisiana, the Orleans Parish Medical Society, and the Louisiana Educational Society.

Addendum.

The pages 8, 9, of the petition of the Louisiana State Medical Society, made a part of the present petition, are as follows:

"All men, who have devoted study to the subject, have become convinced that not only public wealth but also public morality depend to a large extent on public health, and that the progress of this depends on gradually replacing the present gross ignorance and baneful prejudices of the people with sound knowledge of at least the elementary laws of Hygiene. On this subject, that profound philosopher, Herbert Spencer, teaches as follows:

"Knowledge which subserves direct self-preservation by preventing loss of health is of primary importance. We do not contend that possession of such knowledge would, by any means, wholly remedy the evil. For, it is clear, that in our present phase of civilization, men's necessities often compel them to transgress: and, it is further clear, that even in the absence of such compulsion, their inclinations would frequently lead them, spite of their knowledge, to sacrifice future good to present gratification. But we do contend, that the right knowledge impressed in the right way, would effect much; and we further contend that *as the laws of health must be recognized before they can be fully conformed to, the imparting of such knowledge must precede a more rational living*—come when that may."

On this same subject the distinguished moralist, the Rev. Chas. Kingsley, declared that, "the art of keeping one's self alive and well,' 'will, in some *more civilized* age and country, be held a necessary element in the school course of every child, just as necessary as reading, writing and arithmetic.'

In fine, at the present day all those most eminent as students of educational problems unite with sanitarians in insisting that the knowledge of

Hygiene should be popularized; that it should be taught sufficiently to convince men that health and disease are, to large extent, in their own hands; that, among other means, to this end, there is one which is indispensable; and that this one is the teaching of Hygiene in all schools, and especially in the public schools. A beginning must be made, and the sooner the better for the common weal of Louisiana."

NEWS ITEMS.

The American Medical Association.—The chairman of the Section of Practice of Medicine submits the official programme for the meetings of the Section of Practice of Medicine to be held in Washington, D. C., Tuesday, Wednesday and Thursday afternoons, May 6, 7 and 8, 1884.

The following special subjects have been promised, and those who are announced to enter into the discussions have accepted, and will be present:

1. Discussion on "A contribution to the Clinical Study of Epilepsy," will be opened by Professor William Pepper, of Pennsylvania. Dr. Roberts Bartholow, Pa.; Dr. Horatio Wood, Pa.; Dr. J. S. Jewell, Ill.; Dr. James T. Whittaker, Ohio; Dr. O. P. Hooper, Ark.; Dr. Eugene Grissom, N. C.; Dr. James E. Reeves, W. Va.; Dr. T. B. Lester, Kansas; Dr. Joseph P. Logan, Ga.; Dr. W. K. Bowling, Tenn.; Dr. John S. Moore, Mo.; Dr. James F. Hibbard, Ind.; Dr. J. J. Caldwell, Md.; Dr. John A. Murphy, Ohio; and Dr. A. P. Grinnell, Vt., are expected to take part.

2. A discussion on the "Clinical Study of the Heart Sounds," will be opened by Professor Austin Flint, Sr., of New York. Dr. Edward Janeway, N. Y.; Dr. William Pepper, Pa.; Dr. Federick C. Shattuck, Mass.; Dr. John H. Bemiss, La.; Dr. James Wilson, Pa.; Dr. Richard McSherry, Md.; Dr. James R. Leaming, N. Y.; Dr. John S. Lynch, Md.; and Dr. A. B. Palmer, Mich. are expected to take part.

3. A discussion on "Tuberculosis" will be opened by Dr. Henry F. Formad, of Pennsylvania. Dr. Austin Flint, Sr., N. Y.; Dr. William Welch, N, Y.; Dr. N. S. Davis, Ill.; Dr, George M. Sternberg, U. S. A.; Dr. S. Fitz, Mass.; Dr. Henry O. Marcy, Mass.; Dr. James Tyson, Pa.; Dr. Edward Janeway, N. Y.; Dr. Charles Dennison, Col.; Dr. Henry F. Campbell, Ga.; Dr. W. T. Belfield, Ill.; Dr. Alonzo Garcelo, Me.; Dr. E. O.

Shakespeare, Pa.: Dr. G. C. Smyth, Ind.: Dr. Harold C. Ernst, Mass.; Dr. W. E. Geddings, S. C.; Dr. Traill Green, Pa.: and Dr. John Lynch, Md., will take part.

The following papers are also promised:

Ayres, S. G., M. D., Theory and Instrument of Diagnosis. Bartholow, Roberts, M. D., subject to be announced later. Crawford, S. K., M. D., Etiology of Enteric Fever. Duhring, Louis A., M. D., Dermatitis Herpetiformis. Flint, Austin, Jr., M, D., Dietetic Treatment of Diabetes Mellitus. Green, Traill, M. D., The New Official Chlorate. Griswold, Gaspar, M. D., Irregular Apoplectic Attacks from Other Causes than Hemorrhage and Embolism. Janeway, Edward, M. D., Simulation of Pathognomonic Signs and Symptoms. Jackson, S, K., M. D., Typhoid Fever. Keyt, A. T., M. D., Retardation of the Pulse in Mitral Insufficiency. Linn, G. A., M. D., Specific Treatment of Diphtheria and Croup. Marcy, Alexander, Jr., M. D., Muscular Hypertrophy of the Stomach. Marcy, Henry O., M. D., The Germ Theory of Disease. Miller, J. P., M. D., Phthisis, its Successful Treatment. Prentiss, D. W., M. D., 1. Importance of Uniformity in the Pharmacopœia. 2. A Plea for Greater Interest in the Pharmacopœia on the Part of Physicians. Reed, R. Harvey, M. D., Irritation of the Capsule of Glisson. Schenck, W. L., M. D., Occult Causes of Disease. Tyson, James, M. D., The Milk Treatment of Disease. Welch, Wm. H., M. D., Pathology of Myocarditis, Whittaker, James T., M. D., The Etiology of Pericarditis. Wilson, James, M. D., The Diagnosis of Tumors of the Anterior Mediastinum.

The Association of American Medical Editors.—The annual meeting of the Association of American Medical Editors will be held in Washington, May 5, at 8 P. M., in Medical Hall, southeast corner Sixth and F streets. The Annual Address will be delivered by President Leartus Connor, M. D., on "The American Medical Journal of the Future, as Indicated by the History of the American Medical Journals in the Past." Dr. N. S. Davis will open the discussion on, "How far can Legislation Aid in Elevating the Standard of Medical Education in this Country?" in which Dr. A. B. Palmer, Dr. Henry O. Marcy, Dr. L. S. McMurtry, Dr. C. H. Hughes, Dr. Frank Woodbury, Dr. William Brodie, Dr. A. M, Bell,

Dr. William B. Atkinson, Dr. W. C. Wile, Dr. W. R. D. Blackwood, Dr. Henry Leffman, and Dr. Deering J. Roberts will take part. All members of the profession, especially journalists and authors, are invited to be present and take part in the meeting.

A Valuable Narcotic (from a paper read before the New Orleans Parish Medical Society by Ferd. Lascar).—Since a year or so, the cannabine contained in the extract of cannabis indica has been made into a tannic salt, and has received merited attention from many practitioners.

By distilling Indian hemp with water two distinct alkaloids are obtained, of which the one is highly poisonous. This alkaloid has been eliminated by Mathew Hay (Pharm. Jour. and Transactions, June, 1883; Pharmac. Centralhalle, 24, page 408) in colorless, needle-formed crystals, easily soluble in alcohol and in water, less so in chloroform and ether. When injected hypodermically under the skin of frogs it produces tetanus and acts analogous to strychnia. M. Hay, who experimented with about a kilogramme of the dried herb, called this alkaloid tetano-cannabine.

By freeing the cannabine proper from this highly poisonous substance, and changing it to a tannate, a new narcotic is formed, the use of which has been followed by the best results, and which is far superior in its action to extractum cannabis indicæ, it being of both a decisive and mild action at the same time.

Dr. Frohnmuller, of Firth, has employed it with the best of results, and he records sixty-three cases, of which twenty-one were males and forty-two females: ages, 17 to 73 years; the majority between twenty and forty years. Forty had phthisis, four abdominal tumors, three chronic bronchitis, two lead colic, one acute pneumonia, one insanity, two alcoholismus, one perimetritis, two severe asthma, four mercurial poisoning, and one abdominal neuralgia; all had previously suffered from total or partial sleeplessness, and had been treated with opiates per os, or received hypodermic injections of morphia. In thirty-seven cases good results were obtained, the hypnotic action occurring in about half an hour, sleeping the whole night; in fifteen cases partial success was recorded, while in twelve cases no result conld be obtained, and only in two cases oppression of the head followed, while in three cases head-

ache and some dizziness occurred the following morning, the drug having been administered the evening previous. In one case where a very large dose had been given there occurred symptoms of narcosis, which, however, soon yielded to the use of acetic ether. *In no case was nausea or constipation induced.*

Dr. Frohmuller (*Algem. Med Chir. Zeitung*, 1882, Arch'd Pa., xvii, page 761) claims its use does not interfere with the secretions nor induce intoxication, and that in many cases it will prove a powerful rival to opium. In fact, it is fast gaining favor, especially in obstetric practice. The dose is from 1 grain up to 5 grains, and care should be taken to use only the article entirely free from tetano-cannabine.

The Mississippi State Medical Association held its annual meeting at West Point on April 2.

The Alabama State Medical Association held its annual meeting at Selma, beginning April 8.

Dr. J. W. Holland has been elected Professor of Theory of Medicine in the University of Louisville, in place of the late Dr. Yandell.

Dr. H. A. Cottell, editor of the *Louisville Medical News*, has been made Professor of Medical Chemistry and Microscopy in the same University.

El Dictamen, is a new and decidedly brilliant medical publication issued bi-weekly in Madrid.

A Deserved Compliment.—We have been much gratified to learn that Dr. Sterling D. Kennedy has just been appointed Lecturer on Ophthalmology by the Faculty of the University of Louisiana and will begin a regular course of lectures on his specialty next winter at the Charity Hospital.

It is hardly necessary to refer to Dr. Kennedy's merits in these columns as his brilliant talents and unusual attainments, are thoroughly appreciated by his numerous friends in this city and State. We can only congratulate the Faculty upon their wise selection and Dr. K. upon this worthy recognition of his scientific labors.

The new State Board of Health has received the unanimous endorsement of the New Orleans Sanitary Asso-

ciation, the New Orleans Medical and Surgical Association and of the Parish Medical Society. No better proof could be given than this of the confidence which the new Board inspires in professional circles and of the general satisfaction prevailing everywhere over the appointment of the present incumbents.

At the Anniversary meeting of the Parish Medical Society held, March 28th, the following gentlemen were elected officers: President, Dr. P. B. McCutchon; Vice-Presidents, Dr. J. S. Copes, Dr. C. C. Turpin and Dr. C. J. Bickham; Recording Secretary and Treasurer, Dr. J. H. Bemiss; Corresponding Secretary, Dr. A. G. Friederichs: Annual Orator, Dr. Rudolph Matas.

Poisonous Vanilla.—Under this heading, the "*Rundschau*," says, that there is some vanilla in the market which has been grown near, and become contaminated by poisonous milky exudation. of a member of the euphorbiaceæ, the jatropha curcas. The report, which originated with Jaillet, states that the sample was grown on the island of Reunion, but as it is very possible that other vanilla growing countries may also furnish the same or similarly poisonous vines on which the vanilla creeps, it behooves the consumer to be on his guard. Perhaps it would not be too much to assert that many of the cases of poisoning by ice cream, which have been attributed to all sorts of different causes might, with far more likelihood of truth, be traced to the vanilla which flavors them.

Death from Chloroform.—Mr. G. H. Snowden, resident medical officer of the Portsmouth Royal Hospital, reports a case of death from chloroform; affection · papilloma of the tongue. Death occurred six minutes after the commencement of the operation. The chloroform was given with all caution—excepting the substitution for it of ether; and every effort was made in vain to restore the patient. We are not told, however, that the head was lowered: on the contrary, the patient was laid flat.—*Weekly Medical Review.*

Number of Medical Practitioners in the World.—The *Maryland Med. Jour.* gives the following: It appears from a preliminary investigation made by the library of the Ecole de Médicine that the number of medical practitioners spread over all parts of the globe amounts to 193,000, among whom 18,258 devote themselves solely to

advanced medical study. This is the manner in which these medical practitioners are distributed, according to their countries viz.: 65,090 in the United States, 26,000 in France, 32,000 in Germany and Austria, 35,000 in Great Britain and her colonies, 10,000 in Italy, 5,000 in Spain, etc If the estimate for other countries is as low as that assigned to the United States, which contains nearer 90,000 than 65,000 physicians, the estimate of 193,000 for the entire world is far below the real number.—*Braithwaite's Retrospect.*

How to Discontinue a Journal.—The following from an exchange fully and freely expresses right views on this subject: "You have undoubted right to stop a paper when you feel disposed, *upon the payment of all arrearages.* Do not hesitate to do so on account of tenderness for the editor. When you discontinue a paper, do so manfully; don't throw it back to the postmaster and say: 'I don't want it any longer!' and have 'refused' written on the margin, and have the paper returned to the editor. No gentleman ever stopped his paper in that way, no matter if his head is covered with gray heirs that should be honorable. If you do not longer wish to receive a paper, write a note to the editor, like a man, saying so; and be sure that arrearages are all paid. This advice is according to law and equity." This is published as a guide to the reader when he wishes to discontinue other journals; of course no one ever discontinues *this Journal.*—*Gaillard's Med. Journal.*

Doctors' and Lawyers' Fees.—The Government has paid for one unsuccessful trial of the "Star rout thieves" $144,146 92; of this Mr. Bliss, of New York, received for his portion of the unsuccessful work $57,732 15, an average of $150 a day for fees, and $10 a day for expenses. And yet the small charge of Mr. Garfield's doctors was scaled far below $100 a day, *including expenses*, provided they would sign a receipt in full. The people and the press applauded. Even the medical press, in part, and medical men, thought it all right thus to defraud and degrade the medical profession. A record of shame. —*Gaillard's Journal.*

Lady Claude Hamilton, with the assistance of Professor Tyndall, is translating the life of the French scientist, Pasteur.

METEOROLOGICAL SUMMARY—MARCH. STATION—NEW ORLEANS.

DATE.	Daily Mean Barometer.	Daily Mean Temp'rature	Daily Max. Temp'rature	Daily Min. Temp'rature	Daily Rain-fall, inches.
1	29·944	52·2	62·5	40·9	....
2	30·096	50·3	58·5	41·5	....
3	30·160	58·5	68·0	46·5	....
4	30·177	61 8	66.0	51·6	·12
5	30·039	67·5	73·4	59·0	·03
6	30·011	70·3	76.2	62·3	·01
7	29·891	71·6	75·9	65·7	....
8	29 953	71·7	78·7	66·5	·09
9	30·274	57·1	66.5	49·4	...
10	30·114	64·1	70.5	49·2	....
11	29·933	73·5	79·5	64·9	....
12	30 075	54·7	72.0	45·9	1·07
13	30·033	54·0	56.2	47·5	1·41
14	30·186	57·2	64·5	48·7	....
15	30·299	57·0	64.0	48·7	....
16	30·220	59·6	66.0	50·0	....
17	30·046	65·3	69·6	58·3	1·60
18	29·892	63·0	69.6	59·5	1·85
19	29·958	64·9	70.2	60·7	·04
20	30·074	66·3	72.6	60·5	....
21	30.110	67·1	73.2	60 5	....
22	29·986	66.3	69.2	63·8	·34
23	29·843	70·3	73 3	65·0	1·53
24	29·856	72·9	79.0	61·8	·15
25	29·876	74·7	79·1	70.1	....
26	29·944	69·3	74·9	65.6	....
27	29·880	68·1	74·5	58·7	....
28	29·913	73·9	80.5	69·5	....
29	30·071	72·4	79·5	64·7	....
30	30·185	66·0	72.3	60.1	....
31	30·095	68·4	76.3	58·8	....
Sums	.....	....	....	....	8.24
Means	30·037	64·8	71·4	57·3	....

GENERAL ITEMS.

Highest Barometer, 30.364. 15th.
Lowest Barometer, 29.808. 23d.
Monthly Range of Barometer, 00.556.
Highest Temperature, 80.5. 28th.
Lowest Temperature, 40.9. 1st.
Greatest daily range of Tempert'e, 2.6.1
Least daily range of Temperature, 5.4.
Mean daily range of Temperature, 14.1.
Mean Daily Dew-point, 54·3.
Mean Daily Relative Humidity, 71.9.
Prevailing Direction of Wind, S.
Total Movement of Wind, 6008 Miles.
Highest Velocity of Wind and Direction, 36 Miles, S.
No. of foggy days, 0.
No. of clear days, 8.
No. of fair days, 12.
No. of cloudy days, 11.
No. of days on which rain fell, 13.
Dates of solar halos, 20th and 24th.
Dates of lunar halos, 2d.

COMPARATIVE TEMPERATURE.

1873	60.4	1879	64.7
1874	66.2	1880	65.7
1875	63.5	1881	59.9
1876	59.0	1882	67.9
1877	60.7	1883	61.7
1878	66.4	1884	

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	5.01	1879	6.02
1874	7.06	1880	6.07
1875	10.08	1881	2.08
1876	11.03	1882	0.09
1877	4.09	1883	5.00
1878	4.06	1884	

M. HERMAN, *Corp'l Signal Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM MARCH 23D, 1884, TO APRIL 26TH, 1884, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia	Total Mortality.
March 29	0	2	13	15	11	148
April 5	0	1	21	12	12	130
April 12	0	3	14	13	14	122
April 19	0	10	21	12	9	158
April 26	0	10	13	14	9	133
Total	0	26	82	66	55	691

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NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

JUNE, 1884.

ORIGNAL PAPERS.

Clinical Observations on the Use of the Respiratory Stimulants.

BY DR. JOHN DELL'ORTO.

[Read before the New Orleans Medical and Surgical Association.]

Ars medica tota in observatione.

Mr. President and Gentlemen:

In the paper which I had the honor to read before this Association, on May the 29th, of the year 1880, I said:

1st. That ammonia, strichnia or nux vomica, and belladonna or atropine, were considered by modern therapeutists as respiratory stimulants—that is, medicaments which exercise a stimulating effect on the medulla oblongata, the vaso-motor centre which governs the function of respiration, from which the efferent impulses for setting the muscular mechanism of respiration into action are discharged:

2d. That such a classification was the result of the speculative experimentations made in the physiological laboratories:

3d. That in some forms of diseases of the respiratory organs, when "the breathing is oppressed (to use the language of Fothergill, of London,*), severely taxed and

*Fothergill: The antagonism of therapeutic agents.

failing, there was a good *prima facie ground* for the resort to them in order to stimulate the wearied centres," and bring the respiratory movements to their normal condition.

I finally related two cases of pneumonia, proving their efficacy in the treatment of this disease. Since then I have been clinically investigating the value of these agents in different troubles of both the respiratory and circulatory organs, and this evening I propose to bring the further results before the profession.

Many are the observations that I made during the last three years, and all corroborate the truth of the above stated remarks. Setting apart those milder cases, of which one may say that they might have recovered without any medication—by the simple force of nature—I will confine myself to a selection of the most serious and typical ones.

I.

Case First. C. U., a German 58 years old, is a baker, who is continually exposed to the effects of the inclemency of the weather. On the 21st of November, 1880, he felt a severe pain on the left side of his chest, with chill, high fever and a heavy cough. On the 22d he sent for me.

Diagnosis—*Pleurisy and acute bronchitis.*

The man is a subject of chronic asthma for about 30 years. You can imagine in what a state of anxiety and dyspnœa I must have found him with such a complication.

As his residence is in the rear of the city, on a swampy and aguish place, I commenced the treatment with 20 grains of quinine to be taken in five doses. Next day, the 23d, I prescribed a cough mixture. On the 25th, the fever had completely disappeared, and the expectoration had become a little easier, but there was no improvement in his breathing: the asthma was suffocating. He had no sleep for four days. I resorted to the prescriplion recommended by Fothergill, that is: five grains of carbonate of ammonia with fifteen drops of tincture of nux vomica, three times a day.

The following is the formula, which I generally use:

Carbonate of Ammonia—one drachm.
Water—four ounces.
Tincture of nux vomica—three drachms.
Syrup of tolu—two ounces.

One tablespoonful three or four times a day; and I renew this mixture as often as the gravity of the case requires it. After the third dose the patient was able to lie down, the pleuritic pain had disappeared, the expectoration was free, and so continuing the remedy for several days, the respiratory movement gradually became more regular, sleep returned, and on the 30th he was convalescent.

He has enjoyed tolerably good health until the commencement of December, 1883, when he caught a bad cold, and had a similar attack of *pleuritis* and *acute bronchitis*.

With the exception of quinine, the same plan of treatment was adopted, with the same satisfactory results.

This time I made him take, during convalescence and one week longer, a preparation, in which I combine the carbonate of ammonia with the iodide of potassium and tincture of belladonna. It is a very happy combination, that I found very useful in some forms of bronchitis and asthma, especially of a rheumatic cause. Fothergill suggests such a combination in the following lines:* "Expectorants must be divided into two classes: 1st, the true stimulant expectorants; and 2d, those which act upon the bronchial lining and increase the secretion of phlegm.

"The first enable the patient to breathe, and so to cough more efficiently; the second make the mucus less tenacious, so that it is more easily coughed up. Ammonia represents the first class, and iodide of potassium the second.

"Thus, in a case of severe bronchitis, where the respiration is embarassed, and the secretion not very loose, these drugs would be combined and given in a vehicle, like senega."

The facts, gentlemen, have confirmed by the bedside the

* Loco citato, page 146.

soundness of this suggestion, and I can recommend you the combination as a good practical one. Besides, my experience has taught me that the activity of iodide of potassium on the general system is greatly increased by belladonna and carbonate of ammonia, so that with comparatively small doses you can obtain the desired result, without having the irritating effects on the mucous membrane of the nose and throat, that often occur when you give iodide of potassium in large doses. Now, if we consider that one of the local effects of belladonna is to cause the dryness of those same membranes, which are excited by hypersecretion from the iodide of potassium, we are led to think of some antagonistic action between the two drugs, and consequently of the advantage of their association in practice.

Case Second. G. M., an Italian, aged 40, a robust, well-nourished and hard-working man.

On the last day of November, 1881, as the weather was rather warm, he took his flannel undershirt off. Next day he was seized with a well-marked rigor, fever, and a severe pain on the right side of his chest. I was called on the evening of the same day (December 1st), and found him lying on the right side with a fever of 104°, pulse 100, eyes injected, a dry cough, and a very painful and oppressive breathing. Twenty-five years ago this man would have been a good subject for venesection. . . .

I prescribed for that evening and the following day, twenty grains of quinine in two grain doses, and a pectoral syrup containing six grains of kermes and some spts. lauro cerasi, and ordered hot applications *loco dolenti*.

On the third, the patient is worse; he has passed a restless night; cough continues to be dry, and the few sputa, that he expectorates with great difficulty, are rusty, thick and stick to the bottom of the spitting-box—the characteristic *crachats glutineux ou pneumoniques* of Laënnec. At the base of the right lung there was dullness; crepitant *râles* and pleuritic friction sound were distinctly heard.

Diagnosis.—*Pleuro-pneumonia* of the right side.

On the morning of the same day, the tongue being foul and bowels confined, I ordered a dose of castor oil. In the evening I administered the carbonate of ammonia with tincture of nux vomica, according to the formula. After the fourth dose a general improvement was noticed; he had a good rest of several hours, the breathing was easy, the expectoration free, and sputa had become whitish and mucous. The stimulating mixture was repeated twice; cod liver oil is given at the same time, a tablespoonful in the morning and one at night.

On the eleventh day he was convalescent.

On the sixteenth he had perfectly recovered, and has been enjoying excellent health ever since.

Case Third.—Of this case I did not take any daily record, because the patient was treated at Hotel Dieu during the first and acute stage of his disease.

The subject of this observation is a young, unmarried Frenchman of thirty years of age. Some time during the severe winter of 1881–82, he went to Hotel Dieu for medical assistance. He says that the doctor called his disease *typhoid pneumonia*. In fact, he remained there about six weeks. When he left he was convalescing, but not completely cured. A few days afterwards he came to my office complaining of a troublesome cough, more especially at night, with rather difficult and heavy breathing. He felt otherwise greatly improved in his general health, and ate with good appetite. Percussion gave a very obtuse sound at the base of one of the lungs (I do not remember which); on auscultation, no respiratory rumor could be heard at the same point. There was then either *hepatisation* or *œdema*, as the consequence of the previous *pneumonia*.

What was to be done for him? I remember the interesting case of general fibrosis of the lung, related by Fothergill, and I treated it accordingly—and here allow me, gentlemen, to make mine Fothergill's language, because it comes to the point.* "It was impossible to add to the thoracic

* Loco citato, page 66.

space, and it was equally impossible to diminish the connective tissue in the lungs; all that apparently could be done was to act upon the respiratory centres and stimulate them, just as digitalis is given to stimulate a feeble heart; ammonia is the most powerful means of acting upon the respiration, with which we are yet acquainted; so five grains of carbonate of ammonia, with fifteen drops of tincture of nux vomica, were prescribed''..... and given three times a day. This medicine, associated with the use of cod liver oil, was continued for over four weeks; the difficulty of respiration was promptly overcome, and at the end of five weeks the lung was perfectly restored to its normal state.

Case Four.—J. T., aged 32; a German by birth, a healthy, but small and nervous man. On the 5th of Jan., 1884, he sent for me for a lumbago, that he contracted a few days before, by lifting a heavy barrel. I prescribed some liniment, and returned on the 8th, when to my surprise I found him dangerously ill.

During the cold spell of the preceding days, while lying in his own bed, but in a very uncomfortable room, he caught cold, immediately followed by an attack of *pleuro-pneumonia* of the right side. He was sitting in bed with three pillows under his back, complaining of a severe pain at the base of the right lung, with oppressive and short breathing, dry and frequent cough, and bloody, characteristic sputa. He had very high fever, and was rather talkative. I soon ordered a mustard poultice *loco dolenti*, and a pectoral syrup of six ounces, containing kermes and alcoholat. lauro cerasi, to be taken by tablespoonfuls, one every two hours.

January 9th. Cough a little easier, but no improvement in the other symptoms. I then prescribed the carbonate of ammonia with tincture of nux vomica. He took three doses in the twenty-four hours.

January 10th. He passed an extremely bad night. The fever was accompanied by such delirium as to require the assistance of two nurses to keep him still and in bed.

At my first visit, at 8 A. M., he was more quiet, but still unconscious. The fever had subsided, and he was sweating profusely. No sleep for five nights.

I must confess that this delirium preoccupied my mind, as I feared that the necessity of having to resort to some other means in order to control it would interfere with the action of the respiratory stimulants, and compromise the life of the patient! I continued, however, on the same medication and waited for the results. Cod liver oil twice a day was admitted at the same time. At 5 o'clock P. M. he had a sleep of three-quarters of an hour. He is conscious, and expresses himself so relieved in his breathing that he thinks he is all right.

January 11th. Improving very rapidly. Last night he slept well and at long intervals; no fever; the blood had disappeared from the sputa; the expectoration is free; the breathing easy and almost without pain.

On January 18th he is convalescent, and on the 27th I discharged him perfectly cured.

Three bottles of the mixture were taken during all the treatment, and one bottle of cod liver oil

II.

In the next two cases, dyspnœa was caused by a serious condition of the heart. They terminated fatally, but the salutary effects obtained by the respiratory stimulants on that most distressing of symptoms were still more remarkable and immediate. In these cases I combined the tincture of nux vomica and the carbonate of ammonia with digitalis.

Speaking of digitalis, let me declare here, gentlemen, that I have lately become converted to the doctrine of Claude Bernard, Traube, Niemeyer, Fothergill, and almost all the modern writers, who hold that digitalis is the tonic, the *quinia* of the heart. Since my early student days, until not long ago, I was a believer in the old view of considering the action of digitalis on the heart as of a sedative and paralyzing character. Not later than 1875,

in a paper that I read before your association, I still held those views. Further studies, more accurate observations, have convinced me of the error of that opinion, and I am glad that the opportunity offers itself now to acknowledge it. Thanks to the onward movement of science.

Case Fifth.—J. R., a Spaniard, age 62, came to my office about the end of April, 1880, and gave me the following history: He is an ex-sea captain, who has always been a healthy man until ten or twelve years ago, at which time he fell on his back while on board of his vessel. What kind of injuries he had received from that fall he cannot tell, but he remembers that he was confined to his bed several weeks, and that he felt for a long time a severe pain in his kidneys; he has lately experienced some difficulty in making his water. He was always very temperate in his habits, and never had any syphilitic disease. In 1878 he had an eruption on the dorsal region of his right foot, which disappeared under arsenic treatment instituted by the late Dr. Rance. He has no appetite; he is losing flesh, and feels tired and weak, with difficulty and shortness of breathing whenever he walks or tries to do heavy work. He complains of palpitations, and looks pale and anæmic. I made use of the catheter, and I did not find any obstruction in the urethra, nor calculi in the bladder. The urine was clear, without albumen, but completely neutral. On auscultation I felt: First, the impulse of the heart very strong against the sternum—a sign of hypertrophy of the right ventricle; second, extension of the beatings of the heart to the whole thorax—a sign of dilatation of both ventricles; third, a great irregularity of the rythm of the beatings, with complete absence of rest after the second sound. Lungs normal. No swelling of the liver, nor of the spleen. The kidneys, especially the left, are rather painful on percussion.

To make a true diagnosis of this case was not an easy matter. When I say a true diagnosis, I mean to be able to properly answer to that principle of general pathology, which says, "when you for the first time see a patient to

find out which is the organ mainly affected, in order to administer the remedy that has to cure it quickly, surely, and pleasantly, *cito, tuto, et jucunde.*" Which is the organ mainly affected in this patient? I asked myself. Did the first start of the whole affair commence in the kidneys from that traumatic nephritis of twelve years previously? Is the actual condition of this heart idiopathic or symptomatic? Is there anything the matter with the functions of the liver? Is there any connection between the eruption, of which he speaks and the other phenomena? Is it a commencement of Bright's disease? (I say a commencement, because the urine was not albuminous.) When does Bright's disease commence?

It was not an easy matter, I repeat, to properly answer these questions, but it was easy to determine an unfavorable prognosis, because I was in the presence of those very serious facts—a deep anæmia, an irregular heart and a neutral urine.

I do not want to impose upon your patience by giving here all the details of this case during the first two months of treatment. I will only say that iron, bromide of potassium, alkaline mixtures, several kinds of diuretics, occasionally purgatives of citrate of magnesia, were the remedies to which I resorted with some improvement, but not much to my satisfaction.

At the end of June, symptoms of a more aggravated character appeared. The patient was seized with rigors and fever, followed by a slight congestion of the lungs, a dry cough, and spasmodic attacks of asthma during the night. Some albumen was noticed in the urine, which was always neutral. Quinine was freely given, some pills of assafœtida and stramonium for the asthma, and chloral hydrate.

On the 8th of July, there was no fever, but the respiration continued to be embarassed, and the action of the heart irregular. Urine scanty, more albuminous and slightly alcaline.

Dr. Ernest Lewis was called in consultation. He sug-

gested tincture of digitalis in 15 drops doses every three hours, and scillitic oximel.

A profuse diuresis soon followed the administration of these drugs, which certainly caused a relief in the general blood-pressure, but the local symptoms of the lungs and heart remained the same.

On the 15th, the idea occurred to me to make a modification in the treatment by associating the tincture of digitalis with the carbonate of ammonia and tincture of nux vomica. As a complication had appeared in the pulmonary organs, I thought that stimulants to the respiratory centres were at the same time indicated.

"When there is a dilated right heart," says Fothergill,* "in chronic bronchitis with emphysema, and digitalis gives but imperfect relief, the addition of strychnia to the mixture will usually make it more effective. The action of digitalis upon the heart, improving its contractions, is not in itself sufficient in these cases, and the action upon the respiration is required as well, in order to efficiently meet the needs of the sufferer."

"In cardiac dilatation† digitalis may be freely exhibited, and if the practitioner feels somewhat afraid of such use of it, he may combine it with nux vomica and carbonate of ammonia—an addition, which ought to relieve his mind of every apprehension."

Encouraged by these words, I prescribed five grains of carbonate of ammonia, ten drops of tincture of nux vomica, and fifteen of tincture of digitalis three times a day.

On the following day a very marked improvement was evident.

On the night of the 16th, he could rest, and slept for more than two hours. The improvement steadily continued.

On the 25th, the nocturnal attacks of asthma had diminished, the heart contracted more efficiently, the urine was abundant and without albumen, but the reaction was neutral again.

* Loco citato, page 118.

† Loco citato, page 83.

On the 30th, I found the rythm of the heart regular, the diastolic rest being as long as in the normal state

During the first days of August, the patient felt so much better, that he wished to take some outside exercise: I stopped the administration of the medicines for two days.

August 9th—My record says: With the exception of a slight shortness of breath when he walks fast, and some œdema of both feet, that disappears at night, the state of the patient is quite satisfactory and encouraging.

August 11—He woke up feeling well, as he had a good sleep the previous night. At 10 o'clock, A. M., he took his breakfast and prepared himself for a ride to the lake. The day was warm; while waiting for the hour of departure, he laid down on his bed and had commenced dozing, when he was disturbed by the noise of mosquitoes near his face; quickly he stood up in order to snatch them with his hands: he fell on his knees, and instantly died!

I saw him several hours afterwards. His face was congested; both eyelids were swollen and echimosed; looking like two black eyes.

No autopsy was made. The immediate cause of death probably was apoplexy.

How cautious we have to be in our prognosis, when we deal with troubles of the heart!

CASE SIXTH.—In the month of February, 1883, I was requested to visit a servant of one of my clients, who had been confined to her bed for several days, complaining of *sore eyes*. She is a mulatto woman of 28, who had always enjoyed good health; lately she had become enormously fat. She was sitting up on her bed with an inexpressive and apathetic countenance, her face having a very vacant look, her eyes exceedingly swollen, protruding, and discharging a yellow, purulent-looking matter. Poor woman, she was blind!

What was the cause of this sudden inflammation and congestion? At first I suspected some syphilitic cause.

I supposed, then, it might have been brought on by ex-

posure and by the dampness of her room; and the immediate relief that she felt, by the simplest treatment that I suggested, seems to prove that I was right in my supposition. In fact, after a few warm applications of cammomile tea and the instillation a few drops of a weak solution of sulphate of atropine, the swelling and discharge rapidly diminished, and her sight was restored.

Four days afterwards I was sent for a again, and found her suffering from a severe attack of pain on the right side of her. chest and abdomen, attended with palpitation and extreme dyspnœa. She could not lie down nor sleep. The amount of adipose tissue rendered examination rather difficult. I was, nevertheless, able to determine a swelling of the liver, and congestion of the right lung.

Auscultating the left chest, I felt irregularity in the beatings of the heart, and its sound was heard over a rather limited area and deeply underneath, probably on account of an accumulation of fat over the precordial region.

In presence of the gravity of the case, and the robust constitution of the woman, I immediately applied ten leeches on the right hypocondrium, and ordered a purgative of podophyllin and calomel, followed by castor oil. This treatment was attended with well marked improvement, but it did not last long. Two days afterwards she had a more severe attack of pain, accompanied by shortness of breath, palpitations, fever and insomnia; in fact, the expression of her countenance indicated how great her suffering was. The mixture of carbonate of ammonia, tincture of nux vomica and digitalis was administered.

At the end of four days all those symptoms had disappeared; she slept well; she was able to leave the bed, and intended to resume her household duties. I told her to suspend the medication for one or two days. The day following, at 7 o'clock P. M., two hours after her dinner, she suddenly died.

I saw her a few minutes after death. Of course no *autopsy* was made.

Unlike the preceding case, her face was extremely pale,

just as if life had departed without any struggle. Most probably the immediate cause of death was anæmia of the brain by failure of the heart to contract. If the age of the woman had been over forty; that is, if she had reached that term of human life when retrograde metamorphosis commences to take place in the tissues, natural decay preparatory to that general metamorphosis or decomposition, which we are used to call *death*, I would say that this was a case of fatty degeneration of the muscular fibres of the heart.

III.

In a case of hiccough that suddenly appeared in a young man dying of consumption, it was needful to exhibit rather large doses of sulphate of strychnia—one-twentieth of a grain, often repeated in the twenty-four hours—in order to control the troublesome intruder.

In a case of advanced albuminuria, that I saw in consultation with our friend Dr. Matas, one hypodermic injection of one-hundredth of a grain of sulphate of atropia, combined with one-fourth of a grain of sulphate of morphine, immediately stopped a nocturnal a ttack of uræmic dyspnœa.

IV.

If time would permit, other cases, as complicated and interesting as the preceding ones, might be quoted here. These, however, are already numerous and eloquent enough to illustrate the points of which I spoke at the commencement of this paper, *i. e.*, that we have in our power means to treat diseases more efficiently and rationally by directly acting on the nervous centres that govern the functions of the organs.

There is no doubt but that the satisfactory results obtained in all those cases are to be attributed to the stimulating action of ammonia, nux vomica, belladonna and digitalis on the medulla oblongata, and cardiac ganglia, of which action one of the most immediate salutary effects was rest and sleep.

Certainly, we cannot, and we must not, expect to cure all diseases. Many causes of functional derangement of the organs are, unhappily, beyond our power. Nevertheless, we can always do some good, By going *pari passu* with the movement of modern science that has to guide us out of the dark reign of empiricism—by a more scientific knowledge of medicaments, and of their antagonistic actions—by a rational combination of one series of agents with another, we will always benefit the sufferers and help them to carry less uncomfortably the burden of life.

Farther we cannot go.

This is the lesson that I was taught by the reading of the excellent book of Fothergill, and by the application of its teachings.

Criticisms, from a Chemical Point of View, on Some Favorite Prescriptions.

By HENRY LEFFMANN, M. D.

[Read April 2, 1884, before the College of Physicians and Surgeons, Philadelphia].

The few points that I present to the College this evening will include little that is absolutely new, but I think the time will not be entirely wasted as I know that the prescription list of most of our drug stores will give numerous examples of the violation of the chemical principles here mentioned. My attention was called to this topic by my being shown by an apothecary a prescription calling for—

Syr. hypophosph.,
Tinc. ferri chlor.,
Acid. phosp. dil. ;

concerning which he said that in the proportions ordered he could never make the mixture up clear. I examined the preciptate and found in it, as I had expected, a large proportion of the iron and other basic ingredients. This is a simple case of incompatibility. Turning the matter over in my mind, it has seemed to me that while some attention is paid to cautioning students as to the general

nature of incompatibility, very little or none is given, especially in the shallow chemical teachings of many medical schools, to the properties and qualities of chemical substances in their relation to the aminal tissues, and the manner of administration. I present here, therefore, a brief consideration of a few well-known remedies.

Under the name of *colorless tincture of iodine*, several preparations are used, depending for their popularity on the fact that they do not stain the skin. They are prepared either by the use of ammonia or of sodium sulphite or hyposulphite. They owe their particular property, or rather absence of property, to the neutralization of the iodine, and just to the extent that the iodine is decolorized is it to the same extent deprived of virtue. The free active affinity of the iodine, to which its local action must be due, is destroyed in these preparations, and the destruction is not slow or uncertain, but in two of the methods mentioned, it is sufficiently rapid and definite to be made the basis of a method of quantitive analysis. It is certainly difficult to see how any person could go so wide of simple chemical principles as to invent or employ this mixture.

Potassium chlorate, or, as it is still erroneously called by many, chlorate of potash, is a remedy concerning which extraordinary claims have been made, based upon most erroneous notions of its chemical qualities. It is employed in the laboratory as a source of oxygen. Knowledge of this fact has led to its employment as an oxidizing agent in diseases which have been supposed to express deficient oxidation. I have nothing to say here as to the clinical results obtained from potassium chlorate in any disease, although I believe it is much less in favor than formerly; but I enter a protest against any advocacy of its usefulness as an oxidizing agent. Under temperatures and conditions, such as that which it meets in the human system, it is one of the most stable of bodies, does not part with its oxygen or chlorine, and, indeed, will not begin to do so except under very high heat. I have found by actual experiment that ten grains of the salt kept for two hours at a

temperature of 100 Fah in contact with an artificial gastric juice did not develop oxidizing qualities sufficient to oxidize one-sixtieth of a grain of phosphorus. This experiment is merely confirmatory of what every-day experience with the substance teaches.

Potassium permanganate has been more or less in favor with physicians for a score of years. It is well known as an oxidizing agent: its powers in this respect are well marked. It is as little suitable for internal administration for such purpose as the body just considered, but for an opposite reason. Its chemical properties are developed by almost every substance, and in the doses in which it is given it will be decomposed and rendered inert very shortly after being swallowed. Within a very recent period the salt has come into notice as a remedy for amenorrhœa, and great has been the tribulation of apothecaries. It has been given in pill form, and all the usual excipients have been unavailable. I have made a few tests of the permanganate pills now in the market, and I find with regard to those made by one of the most reliable houses in this city, that the permanganate is all decomposed and converted into the insoluble manganese dioxide. The preparations of two other manufacturers made up with some mineral excipient, probably kaolin, were in good conditions, but as soon as placed in a mixture of hydrochloric acid and pepsin they begin to decompose into insoluble manganese oxide. These pills vary in strength from one-eighth to one grain: this small quantity of permanganate certainly must soon decompose in the stomach, and the only virtue which it can have is from the manganese itself, and if this is effective, common sense would seem to suggest that the result could be best obtained by exhibiting some definite compound of manganese, such as the chloride or sulphate. When we consider the chemical relations of the salt and almost certain inertness of it in small doses, the gravity with which the learned English therapeutists, who recommended it in amenorrhœa, have discussed the possibility of its producing abor-

tion becomes almost burlesque. I do not desire, of course, to impugn the clinical observations that have been recorded on this point, but I feel obliged to say that if the insoluble and variable decomposition products of one-eighth of a grain of potassium permanganate can affect the function of any one organ, then the difference between us and the apostles of the infinitessimal is small indeed.

I cannot dismiss these two compounds, which owe their popularity to mistaken notions of their properties, without saying a word or two as to the exhibition of oxidizing agents. If rational therapeutics or physiological study indicates remedies of the so-called oxidizing class, then it will be found that no better agents are known to us than those which have long been in our hands. In nitric acid, nitro-muriatic acid, and chlorinated soda, we have substances which are sufficiently stable to resist the organic bodies of the saliva and gastric juice, and are sufficiently active to give oxidizing effects, if such can be obtained by other than local action. I have grave doubts whether the nutritious fluids of the body can be oxidized by any method, but there can be no doubt whatever that such effect cannot be attained by either a body—potassium chlorate—which yields its oxygen only at a red heat, nor by one—permanganate—that decomposes the moment it touches any form of organic matter. Some years since a correspondent in one of our medical journals gravely recommended the use of raspberry syrup to disguise the taste of potassium permanganate. It was of course entirely successful—the taste was destroyed, so was the compound.

Caffeine citrate is a remedy much in favor, and is a remarkable instance of how much physicians take for granted in the remedies they use. There is no caffeine citrate in the market, and it is doubtful whether any such a salt can be prepared. The commercial preparations are either pure caffeine or variable mixtures of it with citric acid.

The manufacturers in this city each furnish a different article, except in cases in which they buy from a common

source ; and a house in a neighboring city furnishes an article which contains no citric acid. Some of the samples are purely bitter in taste, while others are distinctly sour. Analyses of some of the commercial salts are recorded in a paper read before the last meeting of the American Pharmaceutical Association by Dr. G. C. Wheeler. He found the quantities of caffeine varied from 96.5 per cent. to 63.5 per cent. ; of citric acid from 63.5 per cent. to 3.5 per cent. ; none of these figures correspond with the proportion of a true citrate.

It seems to me that accurate clinical observation cannot be made with a preparation of so uncertain a character ; for, as seen by these figures, the proportion of active ingredient may vary 33 per cent., and the lesson that these analyses teach us is that when the effects of caffeine are wanted they are best obtained by the use of the pure alkaloid, and not by a pretended and uncertain compound of it.

Synopsis of a Lecture on the Treatment of Chancroid and Syphilis.

Delivered before the Philadelphia County Medical Society, January 9, 1884.

By JOHN ASHHURST, Jr., M. D.

In introducing his subject, Dr. Ashhurst said that, as he believed that chancroid and syphilis had no connection with each other, except that they were commonly acquired under similar circumstances, it might seem strange that he should join them together in speaking of their treatment. The explanation, he said, was that two years ago, when he had the honor to address the Society on the diagnosis of chancroid and syphilis, the Society requested that on some future occasion he would speak on the treatment of these two affections. In obedience to that request he had the honor to appear to-night.

The Treatment of Chancroid and Syphilis.

If any constitutional treatment is demanded in chancroid,

it is such as is indicated by the general condition of the patient. Chancroid requires local treatment, but as syphilis is a constitutional affection, its treatment is constitutional or general. Local treatment is required for certain manifestations of syphilis, but the treatment *par excellence*, is constitutional.

Speaking first of the treatment of chanroid. we may recognize three plans which have been adopted.

First, That form of treatment which aims to abolish the whole thing at once, that is, by excision. There are maladies in which, by this plan, we can get rid of the disease entirely, as in the case of certain tumors. So a local disease, has begun in one or more spots, should theoretically be removable by cutting away the diseased tissue. This plan has, however, been tried and found wanting. The great objection to it is that the wound almost inevitably becomes inoculated by the chancroidal matter, and that the resulting sore is larger than the first one was, thus rendering the ultimate condition of the patient worse instead of better.

The second form of treatment, and that which I advocate, is one which aims not to remove the disease at once, but to favorably modify its future progress. This is the treatment by cauterization. By destroying the surface of the chancroidal ulcer, we remove its virulent qualities and leave a healthy granulating sore. The caustic application removes the tendency to spread, and converts the ulcer into a healthy granulating surface. In speaking of this tendency to spread, I refer to one of the most prominent features of chancroid, its auto-inoculability, in which it differs from the initial lesion of syphilis. Chancroid is auto-inoculable indefinitely, and I believe that cauterization very much diminishes, if it does not destroy, this property, although the pus from the chancroid is still contagious. It seems to lose, after cauterization, to a great extent, that quality which causes it to spread to other parts on the same person. In the choice of a caustic, my preference is for fuming nitric acid, applied by means of a piece

of soft wood, such as the end of a match-stick. Another plan is to apply the acid by means of a glass brush, but I do not think this as desirable. Every cranny should be cauterized. Any part that escapes retains its quality of furnishing auto-inoculable pus, and the whole surface may return to its former condition; therefore, cauterization must be thorough if it is practiced at all. When the slough, produced by the caustic, separates, the surface soon granulates and heals, but the pus is contagious to the last. If the fear of pain deter the patient from submitting to cauterization, general anæsthesia may be properly employed, or the surgeon may first make an application of carbolic acid, which produces local anæsthesia, and apply the nitric acid afterwards. It may be necessary to repeat the operation.

There are other modes of effecting cauterization; one is the use of the carbo-sulphuric paste, recommended by French surgeons. This forms a crust, which I think is a disadvantage, as concealing the parts beneath. The solution of acid nitrate of mercury may be used, but if applied over an extensive surface it may cause salivation. It is not as well adapted to the purpose as nitric acid. The actual cautery also has strong advocates; it may be employed either with the simple hot iron, or with Paquelin's or the galvanic cautery. These modes of cauterization are effective in cases of serpiginous chancroid—in the latter I think the hot iron the best application that can be made. The material used by many practitioners a few years ago, the nitrate of silver, is inefficient, and, in my judgment, has nothing to recommend it. Then for the after-dressing, after cauterization has been employed, we can use plain water, or lime-water or black-wash, or a solution of salicylic acid, or what is known as the "nitric acid wash" (nitric acid ℥ j; water O j), which is much used as a dressing in New York. When the chancroid is on a mucous surface, as in the female organs, or in any situation in which it is kept moist, a simple dry dressing of absorbent cotton or dry lint may be used; but where the chan-

croid is exposed, dry dressings are apt to become adherent, and wet applications are better. The dressing above all others which I think deserves attention, is iodoform. It is a comparatively recent remedy in these cases, and I think that it is the best application that can be made after thorough cauterization has been effected. It can be used in various ways, by simply dusting the finely-powdered drug over the surface, or as a wet dressing in the form of an alcoholic solution with glycerine, viz: Iodoform ℥ ss; alcohol *f* ℥ ii; glocerine *f* ℥ vi. Or it may be used in the form of an ointment, 15–30 grs. to the ounce, or as an ethereal solution which evaporates, leaving a thin film of iodoform over the surface. An old remedy, which formerly had great reputation in these cases, was aromatic wine, but I do not think it is as efficient as iodoform. Another remedy, which is quite a novel one, is resorcin, an article of the phenol series. Great advantage has been claimed for it. Pyrogallic acid has also been used, as has the subnitrate of bismuth and various other dry powders. In the female, dressings, of course, must be applied with the aid of the speculum.

In chancroids at the meatus, I commonly use a solution of nitrate of silver (30 grs. to *f* ℥), since the contraction after the use of nitric acid might be objectionable in this situation. At the frænum some special precautions may be required. Deep cauterization here may be followed by bleeding, and it has been proposed to prevent this by the previous application of ligatures, tying the frænum above and below the seat of disease, or by employing the actual cautery. For chancroids beneath the prepuce, when this can be retracted, the best plan is to cauterize the sores and dress them in the ordinary way, either replacing the prepuce afterwards, or allowing it to stay retracted, as may be thought most convenient. If, however, the prepuce cannot be retracted, then the surgeon may inject a strong solution of nitrate of silver, or, which I prefer when it can be done, may pack the space between the prepuce and glans penis with lint saturated with a solution of nitrate of silver

(gr. xx to ℥i.) Whenever it is necessary to circumcise the patient, of course the wound should be cauterized, as it will otherwise become inoculated and itself converted into a large chancroid. As for urethral chancroids, which are very rare, cauterization cannot be employed, as increasing the risk of stricture; absorbent cotton may be used as a dressing, taking care to have a thread attached by which the dressing may be withdrawn. About the rectum and anus, chancroids may be treated by cauterization with the subsequent use of emollient enemata and opium suppositories. For the phagedænic chancroid, constitutional treatment is desirable, as in all other cases of phagedæna. Opium—one grain at night and one grain in the morning—is, I think, more beneficial than any other single remedy. In some cases it may be of advantage to remove the surface of a phagedænic or serpiginous chancroid by scraping with a scoop, and then using a caustic, bromine, permanganate of potassium, or caustic potassa; but I think that the hot iron is the best local remedy in these cases. Syphilization has been used for chancroid, but it is of no value.

In regard to the principal complication of chancroid, the bubo, it may be of two kinds, the simple or inflammatory bubo, which is nothing but an adenitis, or the true chancroidal or virulent bubo. I believe it to be impossible, when a bubo first makes its appearance, for the surgeon to say of which variety it is. Of late years I have seen many more examples of the simple than of the virulent bubo. Whether or not this is because the disease, like syphilis, is gradually becoming a milder affection than it was formally, I cannot say.

In regard to the treatment of bubo, the surgeon should enforce rest in bed, if possible. Then counter-irritation should be employed very thoroughly. The best way is that suggested by Mr. Furneaux Jordan, of Birmingham, by applying the counter-irritant to the "next vascular area." The theory is, that by irritating an adjacent part, the blood is caused to flow away from that originally affected. Coun-

ter-irritation is best effected by applying the tincture of iodine in the form of a broad horse-shoe around the inflamed gland, every day or every other day, so as to keep the part on the verge of vesication. The skin should, if possible, not be broken, but if it is so, some soothing ointment must be applied, and the use of iodine suspended for a few days. Over the bubo itself, the dressing which I have found most satisfactory consists of equal parts of belladonna and mercurial ointments; it is a simple resolvent and anodyne application, and is agreeable to the patient. I have also used an ointment of iodoform over the part, but do not think it as efficient as belladonna or mercury; nor do I think the application of blisters as satisfactory as the use of iodine. Pressure is another remedy which may be properly applied when the bubo is not painful, but which is ill-adapted to the acute inflammatory stage. If it is to be employed, pressure may be effected by applying a shot-bag over the bubo while the patient is in bed, or by fastening a soft sponge over the part with a spica bandage applied with the thigh flexed on the trunk. If the bubo suppurates, of course it should be opened. Various plans have been suggested, but I do not think there is anything as efficient as a moderately free incision; and the direction in which this is made is a matter of considerable importance. I find that practitioners generally open buboes in the line of Poupart's ligament, but I think that an incision in the long axis of the patient's body is the best, supplemented, if necessary, by small transverse incisions on one or both sides. If the lips of the wound are kept apart, so as to allow the pus to flow out readily, the process of healing is much more rapid. Multiple punctures have been employed in opening buboes, and the introduction of a seton has also been suggested. In case phagadæna attacks the bubo, the use of the continuous hot bath has been proposed. My experience is here, too, in favor of the use of opium, locally and internally, and, if cauterization is necessary, the application of hot iron. I think that there is an advantage, as regards the bubo, in a thor-

ough cauterization of the original chancroid at the beginning. Bumstead and Taylor recommended that cauterization should be employed if it can be done in the first ten days; but if it is desirable in the first ten days, it seems to me to be proper at any period. These gentlemen believe that by early cauterization the patient will escape virulent bubo, and that even if an inflammation exists, its course will be favorably modified. I am aware that a directly contrary opinion is held by some surgeons, who believe that the risk of bubo is increased by cauterization, but, as far as my own experience goes, it confirms the teaching of Bumstead and Taylor.

If the surgeon is satisfied that he is dealing with a chancroidal or virulent bubo, simple incision is not sufficient. Here suppuration occurs in the periglandular areolar tissue, and it is of great advantage to enucleate the infiltrated glands before they become disintegrated and inoculate the surrounding tissues with chancroidal matter. If the case is not seen until the whole wound has become inoculated, than I would slit up all sinuses, remove the thinned, overhanging skin, and cauterize the whole surface with nitric acid, the patient being under the influence of ether.

The third plan of treatment, which is the fashionable treatment just now, is the use of simple dressings such as I have advised for the after-treatment, without employing caustics. There is no doubt that healing will, in most of the mild, superficial chancroids met with at the present day, ultimately take place without cauterization, but I think the cure will be more certain, more rapid, and more likely to be free from complication, if the chancroid be cauterized in the way that I recommended.

Treatment of Syphilis.—Syphilis is a constitutional affection and demands constitutional treatment. The principal remedies are mercury and iodide of potassium. These have been given for many years, and yet it has never been satisfactorily determined in what way they produce their effects. Probably it is safest to say that they act by

eliminating the syphilitic poison and producing absorption of the gummatous and inflammatory deposits. No doubt, according to modern theories, they might be supposed to act by destroying syphilic germ, but that suggestion opens questions in transcendental pathology into which this is not the time to enter.

For the convenience of considering the treatment of syphilis, we may divide its course into the primary, secondary and tertiary stages.

The lesions of the primary stage are the initial lesion (or chancre) and the bubo which accompanies it. Now in regard to the treatment of primary syphilis, I believe that the surgeon will do well to put his patient under the mercurial treatment, provided that he is sure of his diagnosis. This view is opposed, however, by some authorities, for whom I have great respect My practice is to give mercury: and the best form in which it can be given, in the primary stage, is the green iodide or protiodide. I have been in the habit of prescribing this preparation in pills with opium alone, or made up with a confection of opium as an excipient: it has the advantage that it can be used a long while without causing salivation, and it is, moreover, efficient. I think that this is the safest mode of treating syphilis in the primary stage, but no patient should be placed on a mercurial course unless the surgeon is well satisfied that syphilis is actually present.

In regard to the local treatment of primary syphilis, the principal point is cleanliness; but local treatment is not of much value. Iodoform may be used as a dressing for the chancre, as it may for the ulcerative lesions met with in the later stages of syphilis. Cauterization is of no service. I do not believe that secondary symptoms were ever prevented by cauterizing a chancre.

There is another form of treatment which has some evidence in its favor, and that is the excision of the chancre.

Until within a few years the view of surgeons was that a chancre could not be excised except under special circumstances, as when occurring on an elongated prepuce,

but within recent years the excision treatment has been revived, particularly in Germany, and in this country it has been advocated by Dr. White and others. To those who, like myself, take the view that syphilis is a constitutional disease from the beginning, and that the initial lesion, chancre, is but its first manifestation, of course the excision treatment seems somewhat unphilosophical. I have no personal experience in this form of treatment, but the weight of evidence from what I have been able to read concerning it, seems to me to be against it. This, moreover, appears to be the prevailing view among the leading specialists in venereal affections in New York.

As regards the bubo of syphilis, no special treatment is required, though I have sometimes thought that I have derived advantage from the application of iodoform ointment.

In the treatment of the secondary stage of syphilis, of course mercury is the great remedy. Iodide of potassium is used by some surgeons in the primary stage, but for secondary syphilis all are agreed to use mercury. It should be introduced gradually, to prevent salivation on the one hand intestinal irritation on the other. I think the best way in which it can be used is by inunction. I recommend the patient to rub ordinary mercurial ointment, or an ointment of the oleate of mercury, into the inner side of the thighs, using fifteen grains each morning and night, half a drachm altogether in the course of the day. If this seem too much, the remedy can be suspended for awhile, and then used in diminished doses. Another good plan is to apply the ointment to the soles of the feet, wearing woolen stockings; the place of application should be frequently changed, so as to avoid the occurrence of mercurial eczema. Before each application, too, the skin should be thoroughly washed and dried. In cases of infantile syphilis, Brodie's plan of putting the mercurial ointment on the belly-band is a good one.

If a patient objects to inunction, then mercury must be given by the mouth. The old-fashioned blue-pill is one of

the most efficient preparations, if it is given cautiously; or the iodide may be used, or the bichloride, which, however, I think less useful than the others. Mercurial fumigation is a good method of treatment in certain obstinate forms of cutaneous syphilis, but is too troublesome for ordinary employment. Another mode of administering mercury is by hypodermic injections, usually of from 1-12 to ⅜ gr. of the corrosive chloride, though almost any preparation of mercury may be used hypodermically. I do not think that this plan presents enough advantages to counteract its disadvantages, and believe that it should be reserved for exceptional cases.

For mucous patches, constitutional treatment must, of course, be continued, and as a local remedy, the solution of acid nitrate of mercury may be applied, being then followed by some simple dressing, such as black-wash, and iodoform afterwards. Another plan, recommended by Conradi, is to use a strong solution of nitrate of silver, and then to apply metallic zinc. For syphilitic sore throat, gargles of chlorate of potassium may be employed, or cauterizations with the Liq. Hydrarg. Pernitratis; or dilute hydrochloric acid may be employed with an atomizer. For syphilitic iritis, I have been favorably impressed with Carmichael's mode of treatment, which consists in the administration of oil of turpentine in large doses. I have often used this with great advantage, but have on the other hand sometimes found it to fail, and have had to come back to mercury. The oil of turpentine is given in large doses (ʒi) three times a day, in emulsion with gum and sugar, with a few drops of the tincture of opium to prevent strangury. The most important point in the treatment of iritis, however, is the local use of atropia. For alopecia, cantharidal washes may be recommended.

In the tertiary stages of syphilis, iodide of potassium is the chief remedy. Mercury is useful in the treatment of the dry eruptions and of interstitial orchitis, but not in the gummatous affections, where iodide of potassium is preferable At the same time tonics must be given, as indeed in

the secondary and primary stages also. An expectant plan of treatment has been suggested for syphilis, but it is not to be recommended, nor would I favor hygienic and tonic treatment by itself, though in connection with specific treatment it is of great value. A patient who lives a regular life, avoiding the use of tobacco and alcohol, and at the same time pursuing a proper course of treatment, has a better chance of recovery from syphilis than one who neglects hygienic measures.

In giving mercury for syphilis, there are two plans of proceeding: one in which small doses are given continuously for a long time, as particularly advised by Dr. Keyes, of New York; and the other, which seems to be more philosophical, in which the drug is given "*coup sur coup*," that is, in successive courses with intervening intervals. The doses should be moderate, and salivation should be avoided. The best way is to give mercury cautiously until the symptoms are relieved, or a few weeks longer, and then to suspend it altogether. Then, if there are any fresh symptoms, the administration may be renewed.

It has been proposed by Mr. Venning, as a test to determine when syphilis has been removed from the system, to examine the condition of the inguinal glands. If there is any induration remaining, the patient is still syphilitic.

Iodide of potassium may be used very freely in syphilis. Formerly, five grain doses were ordinarily given, but from eight to ten grains is now considered a fair dose to begin with, and in some cases much larger quantities must be employed. I am convinced, however, that the drug is often given in excessive amounts in ordinary cases of syphilis. I do not recommend large doses unless the disease fails to respond to smaller ones, or unless the symptoms, as in some cases of cerebral syphilis, are immediately threatening to life. The iodide may be given simply in water, or with the compound syrup of sarsaparilla, or with fluid extract of gentian, viz.:

Pot Iod.,	gr. viii—x.
Ext. Gent. Fl.	℥ xv.

With enough water to make a teaspoonful. Iodoform has been given internally, and homœopathic practitioners have employed gold, but neither appears to have any special value. Sarsaparilla used to be looked upon as an important remedy for syphilis, but I have never found that it was of any use whatever. A remedy strongly recommended by the late Dr. Sims was stillingia. Dr. Taylor speaks favorably of the erythroxylon coca. Hot baths are undoubtedly of use sometimes in syphilis. For hereditary syphilis, mercury and iodide of potassium, in doses suited to the age of the patient, and combined with tonics, and especially iron, are of use. If a syphilitic woman is pregnant, she should undergo a mercurial course, in hope of preventing infection of the fœtus.

SELECTED ARTICLES.

The Life-Work of Pasteur.*

By His Son-in-Law.

Louis Pasteur passed his childhood in a small tannery which his father had bought in the city of Arbois, in the department of the Jura, to which he removed from the ancient city of Dôle, in the same department, where he was born. When Louis became of suitable age, he was sent to the communal school, and was so proud of the fact that, though he was the smallest of the pupils, he went on the first day with his arms full of dictionaries away beyond his years. He does not appear, as yet, to have been a particularly diligent student. He was as likely to be found drawing a portrait or a sketch—and the walls of several Arboisian houses bear testimonies of his skill in this art—as studying his lesson, and to go a-hunting or a-fishing as to take the direct way to the school. Yet the principal of the college was ready to predict that it was no small school like this one, but some great royal institution, that was destined to enjoy his services as a professor. As

*From a volume under this title, translated from the French by Lady Claude Hamilton. In press of D. Appleton & Co. The present article is translated and abridged directly from the French by W. H. Larrabee.

there was no Professor of Philosophy in the college at Arbois, young Pasteur went to Besançon to continue his studies. Here, in the chemistry-class, he so vexed Professor Darlay with his frequent and searching questions, that the old gentleman was disconcerted, and declared it was his business to question the pupil, not Pasteur's to question him. Pasteur then had recourse to a pharmacist in the town who had gained some distinction in science, and took private lessons in chemistry from him. He fared better at the École Normale, where he had Balard for a teacher, and also enjoyed the instructions of Dumas, with whom he formed a life-long friendship at the Sarbonne.

Pasteur's first important investigation was suggested at about this time, by an observation of Mitscherlich, the German mineralogist, of a difference in the behavior toward polarized light of the crystals of paratartrate of soda and ammonia and tartrate of soda and ammonia, bodies identical in composition and external form and other properties. Pasteur discovered differences in the form of the crystals and molecular structure of the two bodies that had escaped detection, and was led to consider that all things may be divided into two categories: those having a plane of symmetry—that is, capable of being divided so that the parts on either side of the plane of division shall be equal and identical—or symmetrical bodies; and dissymmetrical bodies, or those not capable of being so divided. Occupied with the idea that symmetry or dissymmetry in the molecular arrangement of any chemical substance must be manifested in all its properties capable of showing the quality, he pursued his investigations till he reached the conclusion that an essential difference in properties as to symmetry exists between mineral and dead matter and matter in which life is in course of development, the former being symmetrical, the latter unsymmetrical.

Pasteur's wedding-day came on while he was engaged in this investigation. He went, not to the marriage-feast, but to his laboratory, and had to be sent for when all was ready.

With his observing powers quickened by his studies of symmetry and dissymmetry, Pasteur went to the researches with which his life has been identified, beginning with his studies in fermentation. Liebig's theory, that fermentation is a change undergone by nitrogenous substances under the influence of the oxygen of the air, ruled at the time, and the observations of Schwann and Cagniard-

Latour on the yeast-plant was overlooked or regarded as exceptional. M. Pasteur continued the investigation of the alcohol-producing yeast plant, and, cultivating it in suitable solutions, proved that it possessed organizing power ample to account for the phenomena. He found a similar organism—minute cells or articulations narrowly contracted in the middle—active in the lactic fermentation, capable of cultivation; and another organism, a vibrion, full of motion, living singly or in chains, working in the butyric fermentation.

The butyric vibrion was found to work quite as vigorously and with as much effect when no air was added to the decoctions, and in fact to perish with a stoppage of the formation of butyric acid when air was too freely supplied. Reverting to the development of the yeast-plant and the alcoholic fermentation, he found that they also went on best when free air was excluded. Thus, Liebig's dictum, that fermentation is the result of the action of oxygen, must be reversed or abandoned. The organisms working these processes were given the class-name of *anærobes*, or beings that live without air. The French Academy's impressions of the results of Pasteur's work were spoken by Dumas, who said to him, "In the infinitely little of life you have discovered a third kingdom to which belong those beings which, with all the prerogatives of animal life, have no need of air to live, and find the heat they require in the chemical decompositions they provoke around them." The place of the organisms in the economy of Nature had not been fixed, but Pasteur was able to declare: "Whether the progress of science makes the vibrion a plant or an animal, is no matter; it is a living being endowed with motion, that lives without air and is ferment." It would be mere repetition to follow the experiments in putrefaction, where Liebig had denied that living organisms have any place, into which Pasteur carried the same methods and obtained the same results as in the case of fermentation. He proved that living organisms have all to do with it.

After M. Pasteur had been collecting his proofs for twenty years, Dr. Bouillaud sharply asked in the Academy: "How are your microscopic organisms disposed of? What are the ferments of the ferments?" He, as well as Liebig, believed the question could not be answered. Pasteur proved, by a series of the parallel experiments of the kind that have since become familiar, that oxygen deprived of

its germs is incapable of producing fermentation or putrefaction, even after years, while the same substances are acted upon at once if the germs are present; and then answered that the ferments are destroyed by a new series of organisms—*ærobes*—living in the air, and these by other ærobes in succession, until the ultimate products are oxidized. "Thus, in the destruction of what has lived, all is reduced to the simultaneous action of the three great natural phenomena—fermentation, putrefaction, and slow combustion. A living being, animal or plant, or the *debris* of either, having just died, is exposed to the air. The life that has abandoned it is succeeded by life under other forms. In the superficial parts accessible to the air, the germs of the infinitely little ærobes flourish and multiply. The carbon, hydrogen, and nitrogen of the organic matter are transformed, by the oxygen of the air and under the vital activity of the ærobes, into carbonic acid, the vapor of water and ammonia. The combustion continues as long as organic matter and air are present together. At the same time the superficial combustion is going on, fermentation and putrefaction are performing their works in the midst of the mass, by means of the developed germ, of the anærobes, which not only do not need oxygen to live, but which oxygen causes to perish. Gradually the phenomena of destruction are at last accomplished through the work of latent fermentation and slow combustion. Whatever animal or vegetable matter is in the open air or under the ground, which is always more or less impregnated with air, finally disppears. The processes can be stopped only under an extremely low temperature, . . . in which the microscopic organisms cannot flourish. These facts come in to fortify the still new ideas of the part which the infinitely little play as masters of the world. If their work, always latent, were suppressed, the surface of the globe, overloaded with organic matters, would become uninhabitable."

Pasteur extended his observations to the acetic fermentation, or conversion of alcohol into vinegar, in which he found an organism, the *mycoderma aceti*, actively promoting a process of oxidation. Liebig had attributed this fermentation, also, to the presence of an albuminoid body in process of alteration, and capable of fixing oxygen. He knew of the plant called "mother," but regarded it as an outgrowth of the fermentation, and in no sense the cause. Pasteur proved, by experiments that left no room

for doubt—the prominent characteristic feature in all his investigations—that the plant is the real agent in producing the fermentation. He eliminated from his compositions the albuminoid matter, which Liebig had declared to be the active agent, and replaced it with crystallizable salts, alkaline phosphates, and earths: then, having added alcoholized water, slightly acidulated with acetic acid, he saw the mycoderm develop, and the alcohol change into vinegar. Having tried his experiments in the vinegar-factories at Orleans, he became so sure of his position that he offered to the Academy, in one of its discussions, to cover with the mycoderm, within twenty-four hours, from a few hardly-visible sowings, a surface of vinous liquid as extensive as the hall in which they were meeting.

Liebig allowed ten years to pass after Pasteur's investigations, and then published a long memoir traversing his conclusions. Pasteur visited Liebig at Munich, in 1870, to discuss the matter with him. The German chemist received him courteously, but excused himself from the discussion, on the ground of a recent illness. The Franco-German War came on: but, as soon as it was over, Pasteur invited Liebig to choose a committee of the Academy, and furnish a sugared mineral liquid. He would produce in it, before them all, an alcoholic fermentation in such a way as to establish his own theory and contradict Liebig's. Liebig had referred to the process of preparing vinegar by passing diluted alcohol through wooden chips, as one in which no trace of a mycoderm could be found, but in which the chips appeared perfectly clean after each operation. It was, in fact, impossible that there should be any mycoderm, because there was nothing on which it could be fed. Pasteur replied to this: "You do not take account of the character of the water with which the alcohol is diluted. Like all common waters, even the purest, it contains ammoniacal salts and mineral matters that can feed the plant, as I have directly demonstrated. You have, moreover, not carefully examined the surface of the chips with the microscope. If you had, you would have seen the little articles of the *Mycoderma aceti*, sometimes joined in an extremely thin pellicle that may be lifted off. If you will send me some chips from the factory at Munich, selected by yourself in the presence of its director, I will, after drying them quickly in a stove, show the mycoderm on their surface to a committee of the Academy charged with the determination of this debate." Liebig

did not accept the challenge, but the question involved has been decided.

The experiments in fermentation led by natural steps to the debate on spontaneous generation, in which Pasteur was destined to settle a question that had interested men ever since they lived. The theory that life originates spontaneously from dead matter had strong advocates, among the most earnest of whom was M. Pouchet. He made a very clear presentment of the question at issue, saying: "The adversaries of spontaneous generation assume that the germs of microscopic beings exist in the air and are carried by it to considerable distances. Well! what will they say if I succeed in producing a generation of organized beings after an artificial air has been substituted for that of the atmosphere?" Then he proceeded with an experiment in which all his materials and vessels seemed to have been cleansed of all germs that might possibly have existed in them. In eight days a mold appeared in the infusion, which had been put boiling-hot into the boiling-hot medium. "Where did the mold come from," asked M. Pouchet, triumphantly, "if it was not spontaneously developed?" "Yes," said M. Pasteur, in the presence of an enthusiastic audience, for Paris had become greatly excited on the subject, "the experiment has been performed in an irreproachable manner as to all the points that have attracted the attention of the author; but I will show that there is one cause of error that M. Pouchet has not perceived, that he has not thought of, and no one else has thought of, which makes his experiment wholly illusory. He used mercury in his tub, without purifying it, and I will show that that was capable of collecting dust from the air and introducing it to his apparatus." Then he let a beam of light into the darkened room, and showed the air full of floating dust. He showed that the mercury had been exposed to atmospheric dust ever since it came from the mine, and was so impregnated and covered with it as to be liable to soil everything with which it came in contact. He instituted experiments similar to those of M. Pouchet, but with all the causes of error that had escaped him removed, and no life appeared. The debate, which continued through many months, and was diversified by a variety of experiments and counter-experiments, was marked by a number of dramatic passages, and drew the attention of the world. M. Pasteur detected a flaw in every one of M. Pouchet's

successful experiments, and followed each one with a more exact experiment of his own, which was a triumph for his position. Having shown, by means of bottles of air collected from different heights in a mountain region, that the number of germs in the air diminishes with the elevation above the earth, and that air can be got free from germs and unproductive, M. Pasteur asserted decisively: "There is no circumstance now known that permits us to affirm that microscopic beings have come into the world without germs, without parents like themselves. Those who affirm it have been the victims of illusions, of experiments badly made, and infected with errors which they have not been able to perceive or avoid. Spontaneous generation is a chimera." M. Flourens, Perpetual Secretary of the Academy, said: "The experiments are decisive. To have animalcules, what is necessary, if spontaneous generation is real? Air and putrescible liquids. Now, M. Pasteur brings air and putrescible liquids together, and nothing comes of it. Spontaneous generation, then, is not. To doubt still is not to comprehend the question." There were, however, some who still doubted, and to satisfy them M. Pasteur offered, as a final test, to show that it was possible to secure, at any point, a bottle of air containing no germs, which would, consequently, give no life. The Academy's committee approved the proposition; but M. Pouchet and his friends pleaded for delay, and finally retired from the contest.

The silk-raising industry of the south of France was threatened with ruin by a disease that was destroying the silk-worms, killing them in the egg, or at a later stage of growth. Eggs, free from the disease, were imported from other countries. The first brood flourished, but the next one usually fell victims to the infection, and the malady spread. All usual efforts to prevent it or detect its cause having failed, a commission was appointed to make special investigations, and M. Pasteur was asked to direct them personally. He did not wish to undertake the work, because it would withdraw him from his studies of the ferments. He, moreover, had never had anything to do with silkworms. "So much the better," said Dumas. "You know nothing about the matter, and have no ideas to interfere with those which your observations will suggest." Theories were abundant, but the most recent and best authorities agreed that the diseased worms were beset by corpuscles, visible only under the microscope. He began

his investigations with the idea that these corpuscles were connected with the disease, although assurances were not wanting that they also existed in a normal condition of the silk-worm. M. Pasteur's wife and daughters, and his assistants in the normal school, associated themselves with him in the studies, and became, for the time, amateur silk-raisers. He studied the worms in every condition, and the corpuscles in every relation, for five years. He found that there were two diseases—the contagious, deadly *pébrine*, the work of the corpuscles, and *flachery*, produced by an internal organism; and "became so well acquainted with the causes of the trouble and their different manifestations that he could, at will, give *pébrine* or *flachery*. He became able to graduate the intensity of the disease, and make it appear at any day and almost at any hour." He found the means of preventing the disorders, and "restored its wealth to the desolated silk district." The cost of this precious result was a paralysis of the left side, from which he has never fully recovered.

As early as 1860 M. Pasteur expressed the hope that he might "be able to pursue his investigations far enough to prepare the way for a more profound study of the origin of diseases." Reviewing, at the conclusion of his "Studies on Beer," the principles which had directed his labors for twenty years, he wrote that the etiology of contagious diseases was, perhaps, on the eve of receiving an unexpected light. Robert Boyle had said that thorough understanding of the nature of fermentations and ferments might give the key to the explanation of many morbid phenomena. The German doctor, Traube, had in 1864 explained the ammoniacal fermentation of urine, by reference to Pasteur's theory. The English surgeon, Dr. Lister, wrote in 1874 to Pasteur that he owed to him the idea of the antiseptic treatment of wounds which he had been practicing since 1865. Professor Tyndall wrote to him, in 1876, after having read his investigations for the second time: "For the first time in the history of science we have a right to entertain the sure and certain hope that, as to epidemic diseases, medicine will shortly be delivered from empiricism and placed upon a really scientific basis. When that great day shall come, mankind will, in my opinion, recognize that it is to you that the greatest part of its gratitude is due."

The domestic animals of France and other countries had been subject to a carbuncular disease, like the malignant

pustule of man, which took different forms and had different names in different species, but was evidently the same in nature. A medical commission had, between 1849 and 1852, made an investigation of it and found it transmissible by inoculation from animal to animal. Drs. Davaine and Rayer had, at the same time, found in the blood of the diseased animals minute filiform bodies, to which they paid no further attention for thirteen years, or till after Pasteur's observations on fomentations had been widely spread. Then, Davaine concluded that these corpuscles were the source of the disease. He was contradicted by MM. Jaillard and Leplat, who had inoculated various animals with matter procured from sheep and cows that had died of the disease without obtaining a development of the bodies in question. Davaine suggested that they had used the wrong matter, but they replied that they had obtained it direct from an unmistakable source. Their views were supported by the German Dr. Koch and M. Paul Bert. At this point, M. Pasteur stepped in and began experiments after methods which had served him as sure guides in his studies of twenty years. They were at once simple and delicate. "Did he wish, for example, to demonstrate that the microbe-ferment of the butyric fermentation was also the agent in decomposition? He would prepare an artificial liquid, consisting of phosphate of potash, magnesia, and sulphate of ammonia, added to the solution of fermentible matter, and in the medium thus formed would develop the microbe-ferment from a pure sowing of it. The microbe would multiply and provoke fermentation. From this liquid he would pass to a second and then to a third fermentible solution of the same composition, and so on, and would find the butyric fermentation appearing in each successively. This method had been sovereign in his studies since 1857. He now proposed to isolate the microbe of blood infected with carbuncle, cultivate it in a pure state, and study its action on animals." As he was still suffering from a partial paralysis, he employed M. Joubert to assist him and share his honors. In April, 1877, he claimed before the Academy of Sciences that he had demonstrated beyond the possibility of a reply, that the bacillus discovered by Davaine and Rayer in 1850 was in fact the only agent in producing the disease. It still remained to reconcile the facts adduced by Messrs. Jaillard and Leplat with this assertion. The animals which they had inoculated died, but no bacteria

could be found in them. M. Paul Bert, in similar experiments, had found a disease to persist after all bacteria had been destroyed. An explanation of the discrepancy was soon found.

The bacteria of carbuncle was destroyed as soon as putrefaction sets in. The virus with which these gentlemen had experimented was taken from animals that had been dead twenty-four hours and had begun to putrefy. They had inoculated with putrefaction, and produced septicæmia instead of carbuncle. All the steps in this line of argument were established by irrefragable proof. M. Pasteur afterward had a similar controversy with some physicians of Turin, at the end of which they shrank from the test experiment he offered to go and make before them. "Remember," shortly afterward said a member of the Academy of Sciences to a member of the Academy of Medicine, who was going—in a scientific sense—to "choke" M. Pasteur, "M. Pasteur is never mistaken."

Having discovered and cultivated the microbe that produces hen-cholera, Pasteur turned his attention to the inquiry whether it would be possible to apply a vaccination to the prevention of these terrible diseases of domestic animals. He found that he could transplant the microbe of hen-cholera to an artificially prepared medium and cultivate it there, and transplant it and cultivate it again and again, to the hundredth or even the thousandth time, and it would retain its full strength—provided too long an interval was not allowed to elapse between the successive transplantations and cultures. But if several days or weeks or months passed without a renewal of the medium, the culture being all the time exposed to the action of oxygen, the infection gradually lost in intensity. A virus was produced of a strength that would make sick, but not kill. Hens were inoculated with this, and then, after having recovered from its effects, with virus of full power. It made them sick, but they recovered. A preventive of hen-cholera had been found. In the experiments upon the feasibility of applying a certain remedy to carbuncular diseases, it was necessary to ascertain whether or not animals, which had once been stricken with the disease, were exempt from liability to a second attack. The investigator was met at once by the formidable difficulty that no animals were known to have recovered from a first attack, to serve as subjects for trial. A fortunate accident in the failure of another investigator's experiment gave M. Pas-

teur a few cows that had survived the disease. They were inoculated with virus of the strongest intensity, and were not affected. It was demonstrated, then, that the disease would not return. M. Pasteur now cultivated an attenuated carbuncle-virus, and, having satisfied himself that vaccination with it was effective, declared himself ready for a public test-experiment. Announcing his success to his friends, he explained in patriotic self-forgetfulness, "I should never have been able to console myself, if such a discovery as I and my assistants have just made had not been a French discovery!"

Twenty-four sheep, a goat, and six cows were vaccinated, while twenty-five sheep and four cows were held in reserve, unvaccinated, for further experiment. After time had been given for the vaccination to produce its effect, all of the animals, sixty in number, were inoculated with undiluted virus. Forty-eight hours afterward, more than two hundred persons met in the pasture to witness the effect. Twenty-one of the unvaccinated sheep and the goat were dead, and two more of the sheep were dying, while the last one died the same evening; the unvaccinated cows were suffering severely from fever and œdema. The vaccinated sheep were all well and lively, and the vaccinated cows had neither tumor nor fever of any kind, and were feeding quietly. Vaccination is now employed regularly in French pastures; five hundred thousand cases of its application had been registered at the end of 1883; and the mortality from carbuncle has been reduced ten times.

There is no need to follow M. Pasteur in his further researches in the *rouget* of pork, in boils, in puerperal fever, in all of which, with other maladies, he has applied the same methods with the same exactness that have characterized all his work. His laboratory at the École Normale is a collection of animals to be experimented upon—mice, rabbits, Guinea pigs, pigeons, and other suitable subjects, with the dogs upon which he is now studying hydrophobia most prominent. There is nothing cruel in his work. His inoculations are painless, except as the sickness they induce is a pain, and the suffering they cause is as nothing compared with that which they are destined to save. On this subject he himself has remarked in one of his lectures: "I could never have courage to kill a bird in hunting; but, in making experiments, I have no such scruples. Science has a right to invoke the sovereignty of the end."

What he has done, M. Pasteur regards as only the be-

ginning of what is to be accomplished in the same line. "You will see," he has sometimes said, "how this will grow as it goes on. Oh, if I only had time!"—*Popular Science Monthly.*

Palatable Prescriptions.

A paper read before the Cincinnati Medical Society, April 22, 1884.

By John L. Davis, M. D.

The physician of to-day with his instruments or precision, and aids of his own devising, can watch the various organs as they glow in health or struggle with disease: he is able to see and measure and paint the processes and read them as an open book. Physiology and pathology have made such remarkable progress in a few years, that now diagnosis may almost be numbered among the exact sciences; and it stands a magnificent monument to the physician's industry and skill. On the other hand, while contemplating this gratifying progress in one department of medical science, we are made aware of the slow advance in therapeutics, the application of remedies to the treatment of disease.

The modern scientific physician with his thermometer, sphygmograph and microscope is far ahead of the old-fashioned doctor in ability to make an accurate diagnosis: he can clearly map out the inflamed area of the diseased lung, and can explain the exact pathological signification of rusty sputa. But it is very questionable whether he treats the pneumonia with better results than his old style brother. It seems almost as if the physician in his effort to find out what disease is, has forgotten that his object is its cure. It has been humorously said, that the profoundly scientific physician of certain medical centers of Europe, makes an elaborate and laborious diagnosis and then sits at the bedside till the patient dies, waiting to verify his theory by a post-mortem examination. The picture is over-drawn; but it illustrates a prevalent impression that more study is given to the discovery of a disease than to devising methods for its cure: that modern doctors care more for accurate diagnosis than for successful treatment. Our ability as physicians is estimated solely by results: a successful result is based not on diagnosis alone, but on diagnosis and treatment, and the second factor is no less

important than the first. And I cannot but believe that if more time and skill were devoted to investigating the actions of remedies and the best modes for their exhibition, our success as physicians would be greater than it is. Where the patient's friends now feel called upon to admire the doctor's beautiful post-mortem examination, they would then, I think, have more occasions for congratulating the patient upon recovery.

But taking our drugs as we find them, do we use them to the best advantage? Of course, for the administration of medicines that are contra-indicated and for incompatible mixtures there can be no excuse. Yet apart from such glaring and obvious mistakes as these, every druggist's files contain illustrations of the most unpalatable preparations, unsightly and nauseous. These compounds may not be incompatible, but they are repulsive and should be avoided not only as productive of obvious discomfort to the patient, but from their tendency to shake his faith in the doctor; and what is a more important consideration still, their very repulsiveness, through reflex action and mental influence may altogether destroy the natural and desired action of the drug. While such mortifying and inexcusable mistakes are made by physicians, you can hardly blame the public for using agreeable, and in many cases very valuable patent medicines; I would take them myself and so would you in preference to some of the horrible combinations which may be found on file in any drug store.

Pharmacists offer us various agreeable vehicles and methods for the administration of distasteful substances; in the shape of the elegant modern gelatine, or sugar-coated pills, elixirs and syrups; and they have ingeniously contrived wafers and capsules. But besides the recognized uncertainty of many of these preparations, pills and capsules are taken by some persons with such inexplicable repugnance, as to be altogether ineligible.

And in the case of some elixirs, the pharmacist in his laudable effort to secure a pleasant preparation, has overlooked the prime object of giving the drug, and by the addition of syrups and aromatics, has seriously modified its action.

It is with the view of suggesting agreeable and appropriate vehicles for some of the most repulsive drugs, that I offer the following prescriptions to which I ask your attention. They are the result of a great many experiments, and most of them I have used in practice and can recom-

mend as the best combinations possible without modifying the drug in such a way as to effect its action. I have attempted to marshal these unruly drugs under something approaching order; though I confess, the classification is far from being a perfect one. A few drugs of each class will suffice to illustrate how the whole class may be improved.

1. *Bitter drugs.* These comprise a very large class of unpalatable medicines, the climax of bitterness is reached in the cinchona bark. The best prescription for masking the taste of quinine is—

℞. Quiniæ sulphatis.....gr. xxx
Tinct. aurant. cort recentis..... ʒ ij.
Ext, glycyrrhizæ fl..... ʒ vi.
Syr. simplicis ..... ʒ i.

Or it may be given with the aromatic syrup of licorice. Simply chewing a piece of licorice root before and after taking the quinine will very effectually hide its bitter taste. The same methods for administration apply equally well to most other bitter medicines. In the *American Journal of Medical Science* (1878) Dr. Samuel Ashhurst, of Philadelphia, describes an agreeable method for the exhibition of cinchonia. He uses the alkaloid rather than the more usual sulphate; for while being equally soluble in the stomach it is less so in the saliva, and consequently its bitterness is less marked than that of the sulphate. His prescription is—

℞. Cinchoniæ.....gr. i.
Sac. lactis.....gr. iv.
Natr. bicarbonatis.....gr. 1-10.

The soda renders the alkaloid less soluble in the mouth, while the sugar of the milk gives it an agreeable, sweet taste. Children take this powder without the least aversion.

The thick, viscid elixirs of taraxacum is also a valuable vehicle for the administration of medicines. And finally it may be said of these, as of all medicines, that if taken very cold, or if a piece of ice is taken into the mouth immediately before the medicine the objectionable taste will be less marked.

2. *Salty and metallic drugs.* A large class of unpala-

table drugs is included under this head. The best prescription containing iodide of potassium is the following:

℞. Potassii iodidi.....3 ij.
Tinct. aurant. cort. recentis.....3 ij.
Ext. glycyrrhiz. rad. fl .....3 i.
Syr. simplicis.....q. s. ad. 3 iij.

Of this each teaspoonful contains five grains, and the iodide is so perfectly disguised that persons who have been accustomed to its use fail to recognize its presence. For this combination I have been indebted to Mr. Julius H. Eichberg, the skillful and efficient druggist of the Cincinnati Hospital. The vehicle is eligible also for the administration of the bromide of potassium. A syrup of coffee is highly recommended to hide the taste of the iodide—fifteen grains to the ounce. The same vehicle can be used for the bromide, except in cases where the stimulant effect of coffee is to be avoided.

A simple and somewhat effective way for administering the iodide and bromide as well as salicylic acid is in milk—ten grains to the ounce Another mode for giving these drugs is to use as the vehicle, slightly alkaline, carbonated water, either natural or artificial. This plan was proposed by Dr. Seguin (New Remedies. 1883, 195).

The syrup of the iodide of iron is a useful medicine which is best given simply with the fluid extract of licorice root; this is preferable to the ordinary succus glycyrrhizæ. A medicine peculiarly disagreeeable to many persons from its bitter, salty taste is magnesium sulphate. The following prescription offers an elegant means for its administration:

℞. Magnesii sulphatis.....3 ij.
Acidi sulphurici.....g ttv.
Glycerinæ.....gtt. v.
Aquæ.....aa. 3 i.

Half of this in a glass of water constitutes an agreeable dose of an ordinarily repulsive substance. By the addition of a drop or two of mint the mixture becomes not only palatable but attractive.

3. *Astringent drugs.* Tannin is the representation of a class of remedies repulsive by reason of an astringent, acrid taste. This may be materially improved by the addition of sugar of milk and aromatic powder. I have also ordered it with powdered licorice, which materially improves the taste. Salicylic acid may be given in powder the same way.

When alcohol is not objectionable the following combination will be found useful and agreeable:

℞. Acidi salicylici.....gr. viij.
Spir. vini gallici.....m. xl.
Syr. acaciæ.....
Syr. limonis.....aa. mx.

Chloral, besides having an acrid taste is burning and penetrating; and these qualities make it a most difficult substance to disguise. I have seen some alleged palatable prescriptions of this drug, in which the only thing disguised and perfectly hidden was the aromatic vehicle, the taste of the chloral being apparently reinforced and concentrated. The best combination containing this drug is a suggestion of Mr. Eichberg. It is this:

℞. Chloral hydratis.....gr. v.
Glycerinæ.....℥ i.

Or it may be still farther improved, thus:

℞. Chloral hydratis.....gr. xx.
Glycerinæ.....℥ ij.
Ext. glycyrrhiz. rad.....fl. ℥i.

Each drachm of which contains six and two-thirds grains of chloral. These same vehicles may be used in giving croton chloral hydrate, a remedy which is remarkably beneficial in some cases of facial neuralgia.

Another convenient and agreeable vehicle is syrup of raspberry, a drachm of which covers the taste of three or four grains of chloral.

4. *Etherial drugs.* The syrup of raspberry is also valuable to conceal the disagreeable character of sweet spirits of nitre; when taken with this syrup in soda water the drug is not tasted.

Sulphuric ether is best given on a lump of sugar, chloroform has a hot burning taste, which is best modified by an emulsion; or it may be given with a large quantity of of simple elixir.

5. *Odorous drugs.* A certain class of drugs is disagreeable more from odor than from taste. Such are carbolic acid and creasote, very repulsive to some persons. The unpleasant character of the former is fairly hidden by simple elixir, five grains of the acid to the ounce. The best way to give creasote is with simple elixir or syrup and madeira wine.

Iodoform has a very objectionable odor, and one method

for disguising it, is the addition of tannin. The compound has a less disagreeable odor than iodoform, but this, improvement is made by destroying the iodoform by the formation of a different substance. Sush prescriptions of course are improper. The offensive odor may be removed by the addition of various substances, without affecting in the slightest the physiological action of the drug. The best combinations are the following:

℞. Iodoformi.....ʒ i.
Nitro benzol.....gtt iij.

℞. Iodoformi.....ʒ i,
Ol. myristicæ.....gtt. ij.

℞. Iodoform.....ʒ i.
Eucalyptol.....gtt. iv.

All of these prescriptions are excellent; the disagreeable odor is perfectly removed, while the properties of the iodoform remain unaltered. Some samples of these combinations prepared two years ago show as yet no trace of the odor of iodoform, though the activity of the drug is unimpaired. The odor may also be hidden, though less effectually by oleum myrciæ (oil of bay) and tonka bean, or its active principle, cumerine.

In the New Remedies (1883, 181) is found this prescription:

℞. Camphor..... 5 parts.
Charcoal.....10 "
Iodoform.....15 "

Of course here we have the additional actions of camphor and charcoal, which would not always be desirable. By the same journal (1880, 116) the oil of fennel is also recommended to cover the odor of iodoform, as well as that of musk. But for either purpose I prefer to use some one of the previously mentioned substances. Nitro-benzol constitutes an agreeable cover for the odor of turpentine. The following is a prescription which I have used:

℞. Ol. terebinthinæ.....*m* x
Mucilag. acaciæ et syrupi.....aa*m*xxv.
Nitro-benzol.....gtt. i.

In some cases turpentine may be best given in pill form. And the same may be said of many of the resins and gums.

Assafœtida is a substance which the Persians use as a condiment, to give their food a pleasant taste. Personally

I should prefer to take it in a gelatine coated pill, which is the least disagreeable method for its administration.

Given in liquid form, it is an exceedingly repulsive drug, whose odor and taste cannot be effectually covered. By the addition to the tincture of a drop or two of oil of orange, and a few drops of aromatic sulphuric acid to the dose, its nauseousness becomes slightly less obtrusive. This is somewhat preferable—if there can be a choice in repulsive things—to the ordinary emulsions, and mixtures containing licorice, tincture of orange, mint, etc.

Ipecac has a repulsive, acrid taste, even as a syrup. If, however, instead of sugar, glycerine is used in making the syrupy mixture, the objectionable features are materially improved.

6. *Oils.*—Such oils as that of copaiba are best given in capsule. But some persons are so constituted as to be unable to swallow capsules, and for such our only refuge is found in emulsions, such as that of bitter almonds flavored with an essential oil.

Castor oil is most easily given with an equal amount of glycerine, and a drop of oil of cinnamon to the ounce. The oil is not recognizable, and the mixture has only the hot, sweet taste of glycerine, agreeably modified by cinnamon. This is the best way to give this valuable medicine to children. It is also readily taken by children when mixed with coarse brown sugar,, and having the mass made firm by placing it for a few minutes on ice. (*Berl. Klin. Wochen.*)

A method for its exhibition suggested by Dr. Potain (*Le Practicien*), appears to answer the purpose. A spoonful of orange juice is poured into a cup, then the oil is added, and finally another spoonful of orange juice. When swallowed, the presence of the oil is completely unrecognizable.

The following elaborate prescription has been suggested. In a tumbler pour six drachms syrup of sarsaparilla, then add ten grains of bicarbonate of soda, and stir. Add then one fluid drachm of a saturated solution of tartaric acid; the reaction will cause a heavy viscid froth. Then pour an ounce of water gently down the side of the glass, so it will reach the bottom with the least disturbance of the other ingredients. Finally the oil is to be added without agitation, and the mixture taken. It is undoubtedly perfectly palatable, but its preparation demands an unreason-

able amount of work, and it is not practicable. Another very palatable mixture is open to the same objection:

R. Ol. ricini ..... ℥i
Ol. anisi
Chloroformi ..... aa gtt.x.
Shake and add mucilag. acaciæ ..... ℥ss.
Shake again and add water ..... ℥ss.

The mixture can then be given. (*Amer. Jour. Pharm.*, Nov., 1875.)

By far the simplest and most eligible palatable prescription containing castor oil is that made with the addition of glycerine, with or without cinnamon.

A very nauseating and unpalatable medicine is cod liver oil. Many attempts have been made to cover its taste. One of the easiest methods for its administration is with the yellow of an egg, a drop or two of an essential oil, and half a glass of sweetened water; or it may be given with glycerine and whisky, or glycerine and compound spirits of lavender. The oil may be much modified, and, to some tastes, improved, by the addition of ten drops of the tincture of eucalyptus globulus to the ounce.

The following method for making a palatable preparation is worthy of consideration and investigation; I have not tried it, but the theory appears plausible:

Take of codliver oil	1,000 parts.
Coffee	50 "
Animal charcoal	25 "

Place in a well closed flask, and digest on a water bath for one hour. Set aside for three days, occasionally shaking; then filter. The oil is then said to have an agreeable coffee flavor, and a pleasant odor. (*New Remedies*, 1876, 30.)

The medicines I have mentioned are those ordinarily most difficult to administer. I have spoken of them as we have them, without attempting any other improvement than can be made by the addition of various substances. But in most instances our medicines may be made still more agreeable by concentration, and by the use of the active principle, as the alkaloids of drugs.

And in some diseases, too, it will be found that medicine may be made not only less discomforting to the pa-

tient, but of greater benefit, by giving it in smaller doses than are now common, though more frequently repeated.

I trust that at some future time I will have an opportunity of speaking on these points, as an interesting feature of this subject.

TRANSLATIONS.

Blenorrhagia in Women.—In an inaugural essay, Dr. Guenedy called attention to some interesting points upon this subject, from which we take his conclusions, as follows:

Acute periurethral follicullitis may be simple, or it may be blenorrhagic; more frequently the latter

Chronic periurethral follicullitis is always blenorrhagic. It may exist after the urethra has become healthy. This chronic periurethral follicular blenorrhagia is of very frequent occurrence. It is frequently the cause of error in diagnosis, or it often escapes notice, and, in such event, the blenorrhagia is not suspected.

There is, however, one point of great assistance in diagnosis, for the urine being unable to wash out the pus in the follicles, its presence is readily noticed.

Among the periurethral follicles there are two which are worthy of special attention, and which ought to be easily distinguished from other periurethral glands. These two follicles, first described by M. Alphonse Guerin in 1864, seem to answer to the description of the female prostate of former authors. The existence of these prostatic follicles is normal; their disposition is variable. Their structure is the same as other periurethral glands, but they are characterized by an agglomeration of those small glands. The glandular duct may, to a certain extent, be compared to the urethral duct itself. Blenorrhagic inflammation of these ducts is very frequent, and may exist after the urethra and other periurethral follicles have become healthy; in which event their specific inflammation is always chronic. This suffices to bring back acute attacks of the disease, or even in their absence to propagate blenorrhagia. Chronic

inflammation of these prostatic follicles may cause hypertrophy of their structure, and give rise to small, polypiform tumors analogous to those which are so often seen in the urethra in chronic urethral blenorrhagia.

These tumors singularly favor the propagation of blenorrhagia, for it is easy to see with a lens that each little gland is filled with a very small drop of pus.

The perifollicular cellular tissue under the influence of a new irritation may become inflamed and suppurate, thus giving rise to an abscess. This abscess may open into the urethra and give rise to a vestibulo-urethral fistula.

The disease still existing when the glands are found in this condition, it becomes necessary to apply a particular form of treatment, as follows:

1. Cauterization with nitrate of silver or the red-hot iron often succeeds, but this procedure is very painful, and besides there is a risk of producing obstruction of the excretory duct of the inflamed follicle and subsequent distension, from which there may arise perifolliculitis and suppuration.

2. It is for the above reason that Vidal de Cassis proposes incision of the follicle, followed by deep cauterization.

3. M. Diday has mentioned an ingenious proceeding for cauterizing the follicles throughout their entire depth. He forces into the duct a fine steel rod of which he heats the protruding end until the heat is great enough to cauterize the follicle.

4. Finally, the follicle may be treated in the same manner as the urethra or vagina, by injections which modify the secretion; injections of nitrate of silver, sulphate of zinc, or tannin, etc. The injections are made with a syringe having a very fine curved canula. — *L'Union Medicale du Canada.* L. F. S.

TREATMENT OF HYDROCELE BY ANTISEPTIC INCISION.

In an article in the *Revue de Chirurgie*, M. Juillard aims to show the superiority of the antiseptic incision, such

as proposed by Volkmann, over the injection of iodine. According to him, the iodine injection, like all other methods of producing irritation of the tunica vaginalis, is a very simple operation, but it induces a violent reaction after the operation, the cure is very slow, and is subject to frequent relapses.

On the contrary, antiseptic incision, when it is practised with care and ordinary antiseptic precautions, is never followed by intense inflammatory reaction; it is not more painful than the injection; the cure is just as rapid, and is never followed by relapse. Its principal inconvenience lies in its being a long, tedious operation, for which it is necessary to have a certain adaptness.

The argument of M. Juillard is based upon fifty-four cases, in which he modified, in several points, the primitive method of Volkmann. He claims, firstly, that anæsthesia is not necessary, for the incision of the skin is alone painful, and it is made rapidly. He prefers large to small incisions, because they permit easy inspection of the tunica vaginalis and testicle, and the ready destruction of exudates which are found on the surface of the vaginal tunic or the small cysts which are attached to the head of the epididymis.

An interesting peculiarity of the operation, as practised by Juillard, consists in the resection of a certain portion of the sac, so that the sutures in the edges of this membrane will permit of exact apposition of the two layers. M. Juillard attaches the greatest importance to this point, which he considers as the essential condition for the obliteration of the tunica vaginalis, by adhesion of the serous walls. It is this which avoids relapses. This suture, made with very fine catgut, is covered over by the walls of the scrotum, sutured in the same manner. Finally, instead of placing a drainage tube in the tunica vaginalis, as is recommended by Volkmann, he is satisfied with placing one within the scrotum, and allow it to remain but a very short time.

An antiseptic dressing, applied with care, serves to protect the parts. A precaution which appears indispensable to the author, consists in the use of sponges applied directly upon the scrotum; they serve both as compressing and absorbing bodies.—*Bulletin General de Therapeutique.*

L. F. S.

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

PUBLISHED MONTHLY.

Communications relating to medicine are invited from every source. Matters of more than ordinary importance are occurring daily to country physicians, brief reports of which this Journal would be glad to get.

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EDITORIAL.

THE AMERICAN MEDICAL ASSOCIATION.

The magnificent meeting which the American Medical Association has just celebrated in Washington has redounded greatly to the credit of the profession throughout the country not only on account of its success as a scientific convention and deliberative body, but because it has through the large and unanimous endorsement of the national "Code of Ethics," proven its determination to crush all efforts that may be hostile to our professional solidarity. The large attendance, which consisted of over thirteen hundred delegates, and the unusually deliberate, harmonious and instructive character of the proceedings, it spite of the stringency of the rules of admission, must have severely wounded the vanity of the discontented parties, who no doubt anticipated some riotous exhibitions, and taught them by this crushing demonstration, the inutility of their efforts and the sterility of their innovations. The practical isolation of the "New Codists," and the general antipathy in which their pseudo-liberal views are held by the vast majority of the profession could not have been more plainly displayed.

We are not anxious to dwell, however, upon this now decrepit "code" question; we only hope that the current year will see its final disposal,—its funeral, so to say, in

order that we may not be annoyed by its unpleasant physiognomy at the next meeting of the Association which is to be held (*let it be well remembered*) in the city of New Orleans, and which we all expect to enjoy immensely. This decision of the Association to meet in our midst (no doubt largely influenced by the great World's Exposition, which is to take place here next year), is certainly a momentous matter offered to our consideration as medical residents of New Orleans. Though assured, by the attractions presented by the Exposition itself, that we will have a large and brilliant gathering—one of the essential desiderata for a successful meeting—there remain difficulties, and numerous difficulties too, which will attend the local management of so difficult and ponderous an affair, that very justly gives birth to anxiety and misgiving as to the ultimate result of our endeavors. Dr. Samuel Logan has been appointed by the Association "Chairman of the Committee of Arrangements," and under his direction these difficulties ought to made lighter, and the visit of the Association to our city a pleasant one. Certainly no more agreeable and able resident could have been selected to supervise this important reception. Aided also by the good will of the local fraternity and by the indubitable hospitality of our people, the profession of New Orleans should begin with some composure to prepare themselves for the heavy burden of responsibility now resting upon them.

WHAT IS MEANT BY ECLECTICISM.

A recent and able contributor to the columns of our sprightly and interesting contemporary, the *Western Medical Reporter*, has been busying himself lately, at the instigation of a correspondent, with the real meaning of this obscure term. Though "Eclecticism," in its literal sense, from the standpoints of the lexicographer, philosopher, or even *the physician*, is a word easy enough to define, in its sectarian, restricted meaning, as used by the specific

species Americana, known as the "Eclectic school," it is not difficult, but simply *impossible* to limit. The reason for this is evident: The "Eclectic school," though young in history, has fallen a victim to its own primordial tendencies; a schism in itself, it is torn by intestinal dissensions.

The diversity of opinion maintained by the "Eclectic" chiefs, as presented by the writer in the *Reporter*, is curious enough to deserve a passing notice, and may even serve to enlighten many of your readers upon some of the heterogenous tenets that seem to influence this interesting though troubled band of reformers.

In October, 1875, the Hon. John Eaton, Commissioner of Education, requested Prof. Alexander Wilder, secretary of the National Eclectic Medical Association, to prepare a paper which should present a record of the progress of scientific training in the special line of his school of medicine.

Prof. Wilder presented an exhaustive paper, the sum and substance of which was: That the science of Eclecticism consists in discarding venesection, minerals, their salts and compounds, mercury, arsenic, antimony and lead.

"Thus we find that an Eclectic is not one who *may select*, but one who *must reject*."

Another declaration of principles was made at the third annual meeting of the National Eclectic Medical Association, in which a number of propositions, formulating the fundamental doctrines of the Eclectics, were laid down and adopted. A careful reading of these propositions impresses the reader with the conclusion that there is nothing particularly distinctive about them except the rejection of a few mineral agents, especially mercury, which is absolutely proscribed from their formulary.

Hyrargyrophobia is not the sole motive for their voluntary isolation from the medical world.

"Dissenters have arisen within the ranks, and mercurialists as well as anti-mercurialists sail under the "Ec-

lectic" flag. In the annual address before the Eclectic Medical Society of the State of New York, delivered October 10, 1883, Dr. M. Brockway defines a different Eclecticism, as follows:

"Eclecticism does not consist in the tabooing of certain drugs or certain methods of treatment.

"Yet some instances would tend to confirm that idea in the mind of an outsider."

"Here is a so-called Eclectic who has tried arsenic or a trituration thereof, or it may be corrosive sublimate; any of the proscribed list, in his practice with apparent success.

"He publishes it. A hue and cry is raised; he is dubbed a renegade, rebel, traitor, accused of 'hankering after the flesh pots of Egypt.'

"To whom or what is he disloyal? 'Prove all things; hold fast to that which is good.' What does it mean? Must *I* prove all things and hold fast to what *I* find good, or must I hold fast to what Tom, Dick, and Harry have proven and approved?

"If the latter, what advantage have I; do not the Pharisees the same?

"'Show me the authority for a confession of faith,' and list of commandments beginning with 'Thou shalt' and 'Thou shalt not.'

"Eclecticism is not a system of medicine, nor is it a chaotic jumbling together of odds and ends; it has a central pivot, a truth, a principle towards which all its apparent diversity tends. Eclecticism is a medical democracy, the offspring of free institutions."

Another important author of the same school says:

"Eclectics constitute a strange medley—they form a mosaic of more colors than Joseph's coat.

"They entertain many shades of opinion, and agree chiefly in claiming individual independence. Each wants to be let alone, and each protected against restraint; hence we are a brittle material from which to weave a firm fabric."

Who would not admire this writer for his candor? Such loyal acknowledgments as these deserve our commendation, and he has it.

It appears that senility exercises a marked influence in the production of anti-hydrargism among the Eclectics, while youth tends towards the readier assimilation of "Specific Medication" by these troubled sectarians. Anti-hydrargysism and "Specific Medication" appear to be at present great bones of contention among Eclectics.

"Specific medication," as taught by J. M. Scudder, who introduced the theory fifteen years ago, is based upon the supposed relation between disease expression and drug action.

"For example, marked pallor of mucous membranes in any disease is said to indicate an alkaline treatment, and some salt of sodium is called for, usually the sulphite. To put it more briefly, the *broad, pallid tongue* in any and every disease calls for sulphite of sodium.

"Some hundred or more remedies have thus been allotted to their diseased conditions, and in specific practice the special condition calls for the special drug and the drug for its special diseased condition.

Prof. Howe, a leading Eclectic, writes to the *Western Reporter* on this subject, and of the several paragraphs published in the article from which we have so largely drawn, two appear to us most striking:

"There is little difference between liberal Allopaths and liberal Eclectics."

"A peculiarity has been that they drew liberally yet with discrimination from all schools—from Dixon's chronothemolism, from hydropathy, from 'domestic practice,' electro-therapeutics, and from allopathic resources—choosing what seemed good from all means and methods."

After this citation of leading orthodox opinions on the meaning of "Eclecticism," it is evident that common sense exonerates us from the laborious task of attempting an original definition.

Reviews and Book-Notices.

The Relation of Animal Diseases to the Public Health and Their Prevention. By Frank Billings, D. V. S., Graduate of the Royal Veterinary Institute of Berlin, etc. New York: D. Appleton & Co., 1884. New Orleans: Armand Hawkins, 196½ Canal street.

"Public health is public wealth;" and any work that proposes to show the way to preserve public health certainly deserves careful consideration. Dr. Billings, in the above work, discusses, in the first part, certain diseases of domestic animals and their prevention. He does not deal extensively in dull statistics, but merely brings forward enough figures to illustrate his subject, and support the position that he assumes. The book is not written for physicians or scientists alone, but is so written as to be easily comprehensible to any person of enlightenment; and for all such, as the author declares in his preface, is the work intended.

Dr. B. discusses trichiniasis, hog-cholera, tuberculosis, anthrax, rabies, glanders, Texas cattle fever, and other diseases. In regard to Texas fever, Dr. B. gives a hint. He says that, that fever prevails at the same time, under the same conditions, and in the same localities as yellow fever, and presents phenomena similar to those observed in the latter disease. Recent experiments have shown that scarlatina exists in the horse, and is transmissible to man. Can we not, by analogy, suppose a connection between Texas cattle fever and our yellow fever epidemics? This subject, from its vast importance, ought certainly to be thoroughly investigated.

Dr. B. admits, however, that his studies in Texas cattle fever are based chiefly upon the report by John Gamgee to the Commissioner of Agriculture, published in 1871. If Dr. B.'s treatment of this report be just, then it must be superlatively bad. Dr. B. confesses his inability to say a

word in favor of the report; and in the course of his article on Texas fever, he dissects a few of the many excellent defects of that poor report. After perusing the article, we arise sympathetically indignant that the Commissioner of Agriculture appointed John Gamgee to investigate Texas fever instead of the author of this treatise. The first part also contains a chapter on bacteria. The classifications of Ehrenberg, Dujardin, Davaine and Nägeli are briefly mentioned: but Cohn's only elaborated and explained. Then follow sections on the distinction of bacteria, the dissemination of bacteria, their nutrition and reproduction, their action in relation to contagious and infectious diseases, etc. In this chapter, the author succinctly describes the bacteria and their relations to disease: and it is so clearly constructed that any intelligent layman can readily follow the chain of facts that connect those minute organisms with the health of the individual host, and consequently with the public health.

The historical section is replete with information, and would prove instructive and entertaining to any one interested in the march of science. The history opens with a sketch of the primitive state of veterinary knowledge among the pastoral Aryans in the dim past, and then traces it up with the course of time, in various countries, to the present day.

The veterinary institutions of France, Vienna, Belgium, Sweden, Russia, Norway and Germany are described; their advantages are set forth, and defects or fault pointed out where the author considers they exist. The institutions and laws of Prussia are discussed at great length, because they are the best, and can well serve as models for similar institutions and laws that ought to be established and enacted in this country.

Part III discusses the means of prevention in general: the culminating point of the work. The author strongly advocates a central veterinary institution: "One school for the nation," in which we should have but one standard, and that the highest practicable; and from which compe-

tent veterinarians could be supplied to all the States. The author reviews institutions that have been established in this country, and shows, to his own mind at least, their own inefficiency and failure to produce competent men. He bases his appeal for a National Veterinary Institution upon this failure, and upon the urgent necessity of fully providing against repetitions of the enormous annual losses endured by the nation from cattle plagues.

The work is well planned, and thoroughly developed. In some passages, the author speaks very emphatically—so emphatically, indeed, that many irreverent readers might conclude that he thought very highly of the opinions of Frank Billings, D. V. S., Graduate of Berlin, etc.; but that, however, can in no manner detract from the many merits and great importance of the work, which fully entitle it to the careful consideration of intelligent citizens in general, and of stockmen and law-makers in particular.

A. McS.

Shakespeare as a Physician. Comprising every word which in any way relates to medicine, surgery, or obstetrics, found in the complete works of that writer, with criticisms and comparisons of the same with the medical thoughts of to-day. By J. Portman Chesney, M. D., etc. J. H. Chambers & Co., publishers, St. Louis, 1884.

Perhaps it would have been as well—perhaps it would have been better had the author entitled this production, "*Chesney* as a Physician," for in that event it would have excellently indicated the character of the work. Instead of the comments which follow the quotations being legitimately confined to "criticisms and comparisons with the medical thoughts of to-day," we find that they are made use of by the author to indulge what we cannot but characterize as his sciolism. We find many such examples: for instance he takes advantage of a certain quotation to enter into a long and very trite essay upon lactation and the suckling of infants, with rules for the same as laid

down in an article by "J. P. Chesney, M. D.", in the *Obstetric Gazette*." Our patience will not permit us to enter into further details or enumeration of instances of this sort. We consider the book a clever piece of advertising of Dr. C.'s medical knowledge. Still, overlooking, if we can, this verbosity, this veritable *cacoethes loquendi* of the author, the reader will find much to interest him in the way of curious quotations from the great dramatist, although we cannot perceive wherein any great display of medical knowledge is shown by Shakespeare. In fact, after reading the large number of extracts before us, we are constrained to still believe, as we did before, that the medical knowledge of Shakespeare was not any more extended or profound than would have been found in any well informed person of his day.

Neither do we admire the sneering fling of the author, delivered in advance to those who may not criticize his book favorably, for he says that if there are any who find fault, "why then we shall hail with delight a *better* work upon the same subject from any one of them." Evidently it was intended to forestall adverse criticism by this taunting gibe. Notwithstanding which, *ex æquo et bono*, we say what we have said. Nor shall we make the effort to write a better book, leaving that for the author himself to do when he shall have learned from honest criticism, which is neither condemnation nor vituperation, wherein his error lies.

Practical Pathology. A manual for students and practitioners. By G. Sims Woodhead, M. D., F.R.C.P.E., Demonstrator of Pathology in the University of Edinburg; Pathologist to the Royal Hospital for Sick Children; late President of the Royal Medical Society, etc. With 136 colored plates. Philadelphia: Henry C. Lea's Son & Co,, 1884. 8vo. p. vii.—484. [Price $6.] New Orleans: Armand Hawkins, 196½ Canal street.

There are several features of this additional work on

Pathology—for we have had many and good ones lately—which deserve special consideration, if not absolute commendation, as original and interesting departures from other texts on the subject. These differentiations consist mainly in the abundance and unusual brilliancy of the illustrations, and in the essentially technical character of the work, which on this account is very properly entitled a "Practical Pathology."

The method of instruction adopted by the author is to follow up the tissues from the dead-house to the laboratory, giving a rather meagre account of the gross anatomy, but a very exhaustive description of the microscopical appearances.

The work is divided into fourteen chapters, embracing "post-mortem examinations, how to make them," etc. (mainly from Virchow); "the technology of pathological histology;" the morbid anatomy and microscopy of the liver, heart, blood-vessels, kidney, lung, spleen, alimentary canal, bone and joints; nervous system; tumors and parasites. The last three chapters are decidedly defective and unsatisfactory, leaving much room in the last, especially for addition in both text and illustration. In regard to the lower organisms, this work is inferior to Ziegler's, Coats' and other late treatises which deel largely with microscopical pathology. The text, in many places, appears to have been hurried over, and though the style must of necessity be very dry, it is made in this case almost Teutonic in its dreariness.

The main attraction of this book is evidently centered in its numerous colored illustrations, which at once strike the eye of the observer with their variegated hues, and æsthetic appearance, if we may so term it. A critical study of many of them, however, must convince the practical worker that they are, properly, more like schematic efforts than actual representations of stained tissues. The attempt of our author and his publishers to illustrate, by colored plates, the morbid histology of the tissues, certainly deserves our highest praise; and, considering that these are

almost pioneer efforts in this special line, and also the special difficulties attending the correct reproduction of tissue staining in a systematic manner, oblige us to overlook many artistic defects and histological inaccuracies which only a greater progress in the art can correct. It is not common to find a combination of the thorough artist with the trained scientific observer. Such a combination is found in Klein & Smith's "Atlas of Histology," a work that has undoubtedly marked an era in the history of iconographic histology. We have no hesitation in saying that, superior as we regard Klein & Smith's work over the one under consideration, as an artistic production, still we do believe the present volume to be fully worthy of associating with it in a student's library as a trusty guide and reference in the investigation of morbid histology, just as the other is indispensable in identifying the microscopical appearances of healthy tissue.

We can say, in conclusion, that the book had a special mission, and that mission has been ably accomplished. Whilst there were a number of systematic treatises on Pathology, a guide was really wanting to the *practical work* involved in the *study*, *preparation and examination* of morbid tissues.

This guide will be found in "Woodhead's Pathology."

Let us only hope that, with all its faults, our students will learn to appreciate it sufficiently.

Medical Diagnosis with Special Reference to Practical Medicine. A guide to the knowledge and Discrimination of Diseases. By J. M. DaCosta, M. D., L.L. D., Professor of Practical Medicine and of Clinical Medicine at the Jefferson Medical College, etc. Illustrated with engravings on wood. Sixth edition, revised. Philadelphia: J. B. Lippincott & Co., 1884. 8vo., cloth, pp. 967. For sale in New Orleans, by J. C. Eyrich. [Price $6.]

We are pleased to welcome a new edition of this standard work. That it is appreciated abroad as well as at

home is demonstrated by the fact that it has been translated into the German language, and is now being rendered into Spanish.

Much new matter has been introduced, and many of the chapters rewritten so as to inculcate all that has been added to our knowledge of disease up to the present time. The subject matter is thoroughly handled, thus giving a complete exposition of all the minutiæ required for the purpose of making a correct diagnosis.

The plan of the work and its manner of instruction are so well known to most practitioners, from previous editions, that it is hardly necessary for us to enter into the details thereof. Suffice it to say, that it is a book which every practitioner needs as an assistant in the discrimination of diseases, and as a reference in such cases as are constantly arising, wherein there is doubt as to their positive diagnosis. To be a good diagnostician is more than half the battle in the treatment of disease, and a thorough knowledge of the topics treated of in this work is certain to add to the success of him who gains it. It is a treatise that is as necessary to the physician as his anatomy or materia medica, and none should be without it.

Sexual Neurasthenia [*Nervous Exhaustion*]. *Its Hygiene, Causes, Symptoms, and Treatment, with a chapter on Diet, for the Nervous.* By George M Beard, A. M., M. D., formerly Lecturer on Nervous Diseases in the University of the City of New York, etc., etc. [Posthumous Manuscript.] Edited by A. D. Rockwell, A. M., M. D., etc. etc. New York: E. B. Treat, 1884. [Price $2 00.]

Perhaps no one has done more to popularize the study of affections of the nervous system than the late Dr. George M. Beard, and the present work is a fitting companion to those which have already emanated from his pen, and is concordant with the most advanced thought of to-day upon this subject. Dr. Rockwell has, through his intimate association with the author, been enabled to,

lucidly present the material left him by his late associate by supplying the continuity where it was broken in the original manuscript, so that although a posthumous work it is complete in all its details.

Many of the diseases in which are placed under the general classes of "debility," "hypocondria," and "hysteria" are found to fall under the comprehension of "sexual neurasthenia" and a careful study of the matter contained in this work cannot fail to make one more successful in the management of what are often obscure troubles of which the treatment is very unsatisfactory to both physician and patient.

We recommend the book as deserving perusal by all who are interested in the study of the particular subject under consideration.

The Cinchona Barks, Pharmacognostically considered By Frederick A. Flückinger, Ph. D., Professor in the University of Strasburg, Germany, and author of a Pharmaceutical Chemistry. Translated from the original text, with some additional notes, by Frederick B. Power, Ph. D., Professor of Pharmacy and Materia Medica in the University of Wisconsin, with eight lithographic plates and woodcut. Philadelpia: P. Blakiston, Son & Co., 1012 Walnut street, 1884. Price $1 50. New Orleans: Armand Hawkins.

This is an excellent translation from the original text of F. A. Flückinger giving in clear and concise terms the botanical origin of the more important species of the cinchona barks together with full information as to their habitat, the methods used in their cultivation, collection and preparation for market.

It gives also a detailed account of the anatomical structure of the tissues, the location of the alkaloids, their chemical constitution and the amount contained in each variety.

Full instructions are also given for their quantitative and qualitative estimation.

The manufacture of the alkaloids of the cinchonas, commercially, is treated of at some length, and two sec-

tions or chapters of the work are devoted to the history of this important class of drugs from their earliest discovery to the present time.

The statistics showing the world's consumption of cinchona and its alkaloids will be found both useful and instructive.

The work is embellished with eight full-page engravings, printed from the original plates, which serve to give a good idea of the general appearance of the different varieties, including some that are not officinal, as well as their internal structure as seen under various powers of the microscope.

Altogether the work is to be recommended as being far more complete than the text books in general use and for those who desire to become more fully acquainted with "Quinology" and "Cinchonology," it is peculiarly well adapted. R. N. G.

Elements of Pharmacy, Materia Medica, and Therapeutics. By William Whitla, M. D., (Q. M. I.) Physician to the Belfast, Royal Hospital; consulting Physician to the Ulster Hospital for Diseases of Women and Children; Vice-President of the Ulster Medical Society. With lithograph and wood cuts. Second Edition. London: Henry Renshaw, 356 Strand, 1884. [New Orleans: Armand Hawkins, 196½ Canal. Price $3 50. pp. 602; 12mo.]

The very comprehensive title of this book would lead one at first glance to suspect it of superficialty; upon close examination, however, we have been struck by its unusual and even surprising completeness, leading one to admire the abridging capacity and encyclopædia knowledge of the author. One hundred pages are devoted purely to Pharmacy, a study which the author justly considers as too often neglected by Medical graduates. One hundred and twenty-four pages are given to Materia Medica: one hundred and eighty-nine to Therapeutics, in which an excellent synopsis will be found of the modern conception of the action of drugs: and fifty-nine pages to the considera-

tion of new remedies. The last section is decidedly up to date and contains a brief notice of all the important additions that have been made to the Pharmaceutical and Thereapeutical repertoires in the last few years. The last parts (V and VI), on the Administrations of Medicines, Posology, Incompatibility and Combination of Medicines, Symbols, Prescription Writing, etc., such as the knowledge needed in elegantly composing a recipe, the parsing and syntax of the latin in prescriptions, and all those minor but valuable details so necessary for the acquisition of that polish so much admired in a physician, are found here presented with unusual clearness and ability.

The work will prove especially valuable to those practitioners who living far from large towns are obliged to put up their own formulæ. The attention devoted by the author to Pharmacy proper, renders his work particularly useful in this respect. Its other qualities however, make it equally valuable to the city physician.

Society Proceedings.

Abstract of Proceedings of Louisiana State Medical Society ---Sixth Annual Session, Held at Baton Rouge, Wednesday, Thursday and Friday, May 21, 22 and 23, 1884.

The meeting was called to order at 12 M., May 21st, by the President, Dr. J. P. Davidson, of Orleans parish.

The meeting was attended by forty-three members, sixteen parishes being represented. Papers were read by Drs. H. D. Bruns, G. B. Underhill, A. G. Friedrichs and F. Formento, and presented by Drs. M. Schuppert and C. A. Hardey—the two latter were read by the recording secretary, the authors being absent.

Resolutions were adopted to the following effect: One avoring, at its request, the effort of the Board of Health

to establish a lower quarantine station: another approving a "non-intercourse" policy, should the Board of Health deem it necessary; a third urging its members and affiliated societies to further in every manner the plans of the managers of the World's Industrial and Cotton Centennial Exposition, to illustrate the natural history and resources of the State of Louisiana; a fourth amending this society's petition concerning the teaching of hygiene and physiology, in accordance with the request of the Women's Christian Temperance Union, adding "and instruction shall be given in reference to the effects of alcoholic drinks, and generally of stimulants, anæsthetics and narcotics upon the human system." The petition in behalf of State medicine to the General Assembly of the State of Louisiana, approved and endorsed by this society at its session of 1883, as published in the June No. 1883, of this journal, was presented.

Judge Wm. A. Seay, member of the House from Shreveport, Caddo parish, addressed the society, by request, on the legal points of the above petition

The following officers were elected:

President—Dr. R. H. Day, of Baton Rouge.

Vice-Presidents—Of 1st Congressional District, Dr. E. S. Lewis, of Orleans parish: of 2d Congressional District, Dr. C. J. Bickham, of Orleans parish: of 3d Congressional District, Dr. C. M. Smith, St. Mary parish; of 4th Congressional District, Dr. T. J. Allen, Caddo parish; of 5th Congressional District, Dr. I. J. Newton, Jr., Morehouse parish: of 6th Congressional District, Dr. T. J. Buffington, East Baton Rouge parish. Annual orator, Rev. R. A. Holland, Rector of Trinity church, New Orleans.

The term of office of the following officers had not expired: Recording Secretary, Dr. P. B. McCutchon, Orleans parish: Corresponding Secretary, Dr. S. S. Herrick,

Orleans Parish; Treasurer and Librarian, Dr. F. W. Parham, Orleans parish.

The society adjourned to meet in New Orleans at 12 M. on Wednesday, January 14th, 1885.

The Louisiana State Pharmaceutical Association held its second annual meeting at Baton Rouge on the 19th of May last.

The President in his address advocated the passage of a bill by the Legislature to regulate the practice of pharmacy so as to protect the medical profession and the public against incompetent druggists, and to insure the accurate compounding of prescriptions according to the official formula. A committee on legislation was appointed to endeavor to have the law passed at the present session.

The Executive Committee in its report suggested that some means be devised to check counter prescribing by druggists, and also to induce physicians to discourage the use of patented or proprietary articles or any which could not be prepared by any competent pharmacist.

The American Climatological Association.

The first annual meeting of the American Climatological Association, was held in Washington, D. C., May 3d and 5th inst.

In the absence of Prof. Loomis, the President, Dr. F. I. Knight, of Boston, first Vice-President, occupied the chair.

The first day was occupied in adopting a suitable Constitution and By-Laws.

The second day was devoted to the reading of papers as follows:

Address by the presiding officer, Dr. Knight. "The Aetiology of Pulmonary Phthisis," by Dr. B. F. Westbrook, of Brooklyn; "The effects of sea air upon diseases

of the respiratory orgains," by Dr. Boardman Reed, of Atlantic City. "The relation of Laryngeal disease to Pulmonary diseases," by Dr. F. H. Bosworth, of New York; by Dr. Chas. Dennison, of Denver, Col., on "Dryness," in which he dwelt on the following points: "Variability versus Equability. A rule for classifying climates as to dryness and desirability, based upon low, absolute and relative humidities and preponderance of sunshine. The influence of elevation, sunshine, cold, etc., in producing desirable dryness. The physical effect of dryness on man." "City life and City air injurious to consumptives," by Dr. Donaldson, of Baltimore. "The use of compressed and rarified air as a substitute for change of climate in the treatment of Pulmonary diseases," by Dr. J. Solis Cohen, of Philadelphia,

The following officers were elected for the ensuing year: President, Prof. A. L. Loomis, New York; First Vice-President, Dr. F. I. Knight, Boston; Second Vice-President, Dr. W. H. Geddings, Aiken, S. C.; Secretary and Treasurer, Dr. J. B. Walker, Philadelphia; Council, Dr. J. H, Tyndale, New York, E. T. Bruen, Philadelphia, E. D. Hudson, New York, Frank Donaldson, Baltimore, Beverly Robinson, New York.

Extracts from Important Papers read at the Meeting of the American Medical Association in Washington, May 6th, 7th and 8th, 1884.

SIMULATION OF PATHOGNOMONIC SIGNS AND SYMPTOMS, By Dr. Edward G. Janeway, of New York.

In opening his paper, the doctor referred to the many mistakes which he had seen resulting from placing too much reliance on so-called pathognomonic signs. It is not many years since choked disk was considered pathognomonic of cerebral tumor. Now this sign is limited to an indication of increased intracranial pressure.

Tremor is often relied on as indicating multiple sclero-

sis. It is necessary first to exclude metallic poisoning and effects of alcohol before admitting that tremor is a sign of multiple sclerosis.

The speaker then referred to indications from coma. Some hold that changes in temperature indicate whether the coma is due to anæmia or to hemorrhage, but some claim an elevated temperature and others a normal temperature for the former. When the temperature is lower at the onset, and afterward becomes elevated, it has, in the author's experience, been a very positive sign of hemhorrhage into the brain. Some would rely on presence of albumen and casts, but these are often present with hemhorrhage.

In regard to pulmonary signs the doctor had seen marked vocal fremitus in pleural effusion. He had also noted bronchial breathing in pleural effusion which could not be distinguished from the bronchial breathing of pneumonia.

The author also called attention to a condition of normal pectoriloquy.

In regard to double arterial murmur, supposed to be diagnostic between aneurism and a tumor pressing on the artery, the author had found this same sign in several cases of tumors pressing on the aorta. He then referred to the dyspnœa of Bright's disease, which is liable, from the cyanosis and great difficulty of breathing, to be referred to cardiac disease.

The presence of albumen in the urine was then spoken of, the author having found this condition in cases in which no other indication of renal disease was present. He reported a case in which albumen was sometimes absent. Hyaline casts may probably be occasionally present without indicating disease of the kidney.

A PERIODICALLY PAINFUL AFFECTION BELIEVED TO BE LOCATED IN THE LIVER, ITS CAPSULE, OR BOTH, OR POSSIBLY A TRUE IRRITATION OF THE CAPSULE OF GLISSON,

Was the title of the paper read by Dr. R. Harvey Reed, of Mansfield, Ohio. He referred to a number of cases presenting a peculiar train of symptoms, which he considered to be due to a rheumatoid irritation of a part or all of the connective tissue which

forms the inner tunic of the liver and envelops the portal vein, hepatic artery and duct, together with the lobules of the liver. The disease is characterized by a burning, boring, throbbing, darting, or lancinating pain. This, as a rule, comes on at night. No evidence of inflammation has been observed.

The affection was supposed to be attributable to sedentary habits, and it had not been seen in intemperate or syphilitic persons. It comes on gradually with a little pain in the abdomen, but this increases in severity until the condition of the patient may appear alarming. The attacks are periodical, and may return once a month or oftener, sometimes recurring as often as every night. If they are not relieved by treatment they may continue for months or years.

The diagnostic points, differentiating this affection from hepatic colic and other hepatic diseases, were next referred to. The prognosis is entirely favorable.

Under a proper plan of treatment the disease usually disappears in a few weeks. The treatment should consist in the use of alkalies and bitter tonics, for instance, a teaspoonful of bicarbonate of sodium, with five grains of powdered hydratis Canadensis, in half a glassful of water before meals, or sulphate of sodium with sulphate of hydrastia. Mercurials do more harm than good, and anodynes are to be administered only when the pain is so severe that their use cannot be dispensed with.

The speaker then gave a detailed report of three cases, which had been selected from a series of twenty-five cases occurring under his observation.

OCCULT CAUSES OF DISEASE.

By Dr. W. L. Schenck, of Kansas.

He gives a a review of the history of germs in disease and says that if bacteria be the cause of disease, we should, expect these diseases produced by germs to be universally present, because the germs are found at all times. The ground where yellow fever patients have been buried has been found a year later to be teeming with bacteria, and he asks, if the cause was present why was not the disease.

He next referred to the fact that any effects attributed to germicides administered internally could not be due to their action, for it would take eight pounds of carbolic acid to make a mixture in the body of five per cent.

strength, and of the mercuric bichloride twenty-three grains would be required to put the fluids in the body in a condition to be injurious to these germs. The success of germicides in the treatment of disease must be attributed to some other action.

The best success has been attained by surgeons and obstetricians who have not used antiseptics with any germicide intent. If germs are not even occult causes of disease, it is well to recognize the fact that microscopists may seek more efficient fields of labor than classifying micrococci, and therapeutists larger game than microzones.

PHTHISIS, ITS SUCCESSFUL TREATMENT.

This was read by title by J. P. Miller, M.D., of Buckhannon, W. Va. After briefly referring to the bacillus tuberculosis and the theory of Koch, and stating his belief that this theory would not aid in preventing or curing pthisis, the author went on to describe the climate and position of the region in which his practice lay. Buckhannon is situated 1,600 feet above tide-water, and the climate is remarkable for its humidity and the sudden and great changes of temperature which occur. These are especially marked during the winter and spring. A fall or rise of from 35 to 50 F. in twenty-four hours is not uncommon, and a rise of 64 in nine hours has been noted. Owing to these climatic conditions, diseases of the respiratory organs are of frequeat occurrence, and on account of the success which he had obtained in the treatment of phthisis the speaker placed himself in opposition to the common belief that phthisis was an incurable affection.

The treatment was next spoken of. In the treatment of high temperature of pthisis florida, the salicylate of sodium, in doses of grs. xvj. to grs. xxiv., had been found to be the most serviceable antipyretic. When diarrhœa was present, from one-fourth to one-half a grain of morphia was added to each dose of the salicylate. The antipyretic should be given during the remission of the fever, and shortly before the exacerbation.

To relieve nausea and vomiting the following prescriptions are used according to circumstances:

℞. Acidi carbolici..... ʒj.
Tinct. iodini ..... ʒij.
M. Sig.—Three drops in water, before food, three times a day; or,

℞. Strychniæ..... gr. j.
Acid. nitromuriat. dil..... ℥ ss.

M. Lig.—From four to eight drops, given as in the previous case; or,

Fowler's solution in doses of not more than three drops will often have the desired effect. If there is diarrhœa, from three to six drops of deodorized laudanum should be added to each dose. Mustard plasters over the stomach may also be used. Digestion may be assisted by the use of dilute hydrochloric acid before meals, followed with pepsin after meals.

The speaker then referred to the good effects which he had obtained from the use of yerba santa in causing the softening, absorption, and extrusion of caseous or tuberculous matters. For these purposes it has no equal in the Materia Medica. In the early stages of phthisis where there is gastro-hepatic and duodenal catarrh, it answers every purpose. In cases of pyrexial phthisis, where various antipyretics have been tried without effect, the continuous use of yerba santa has reduced the temperature from 105 to 99° in the course of a week. Yerba santa has the effect of inducing sweating, and in this way serves to reduce fever. In cases where the temperature is normal or below normal, picrotoxin, or strychnia and atropia, may be used if the night-sweats are copious.

Counter-irritation is of the greatest importance and even where the patient is weak and anæmic good results will follow the use of a blister. In incipient cases, iodide of iron and cod-liver oil are of service in causing the disappearance of the exudation. This may be administered with Trommer's extract of malt.

When there is a catarrhal process extending to the alveoli from the bronchi, the iodide and carbonate of ammonium have a beneficial influence. They may be given as follows:

℞. Ammon. iodidi..... ℥j.
Ammon. carb..... ℥ jss.
Syrup. tolu.,
Aquæ, *aa*..... ℥ij.

Sig.—A teaspoonful every four hours.

The doctor then referred to the fact that in addition to administering drugs it was important to protect the patient from outside influences which would tend to depress the mind, such as the anxiety of friends and the superstitions of neighbors.

In concluding, the author said: "Time and other observers may reverse the verdict, but I cannot help feeling that these adverse influences successfully guarded against, conjoined with the remedies and methods herein recommended, boldly, skilfully, and persistently applied, will prove the means of curing a high per cent. of that form of thoracic degeneration which has hitherto baffled our science and is a standing opprobrium to our profession."

THE SPECIFIC TREATMENT OF DIPHTHERIA AND CROUP.

By George A. Linn, of Monongahela, Pa.

The writer considered that we had a specific for diphtheria in the corrosive chloride of mercury. In order to obtain this effect it is necessary to give the remedy in large doses in the early stage of the disease. The dose for a child three years of age is from one-twentieth to one-twelfth of a grain; for an adult, one-twelfth to one-eighth of a grain every three hours. In mild cases it should be continued for three days, and in malignant cases for two or three days longer. It is best given in solution, and a good vehicle for administering it is elixir of pepsin and bismuth.

If this treatment be instituted at the commencement of the disease no tonics or sustaining treatment will be required: but if the disease has lasted for some time, brandy and iron are to be also employed.

In cases where the membrane invades the larnyx, there may be danger of suffocation, but this is due more to spasm than to the presence of the membrane. For this condition the author considers the chloride of gold to be a specific. It has no taste, produces no nausea, and acts like a charm. The dose for a child two years of age is faom one-fiftieth to one-thirtieth of a grain every hour until relieved. It should be given dissolved in distilled water, and should not be brought in contact with a metal spoon. For simple croup the author regards this as a specific. In diphtheritic croup the bichloride of mercury should be associated with it.

D. C. D. Harkes, of Chicago, read at the meeting of the American Medical Association at Washington, an epitome of his address as Chairman of Section on Surgery, etc., his paper being based upon nearly one hundred exper

iments upon abdominal cavities of animals, the injuries being caused by gunshots. He thought the first thing surgeons should atttend to in gunshot injuries of the abdominal cavity was hemorrhage, as clots so seldom form in the unopened abdomen after such traumatism. The next thing is the course of the bullet and the damage done by it. He spoke of the very uncertain track taken by a missile, illustrating this point by relating several experiments, and warned his hearers against deciding upon its course simply because the points of entrance and exit are plainly to be seen. He illustrated by diagrams the peculiar amount of damage done sometimes by a single bullet, one of them showing fourteen inches of intestine perforated in ten places by a twenty-two calibre ball.

The treatment he recommended was to cleanse the intestine or omentum, if extruded, with warm water, and return to the abdominal cavity as carefully as possible; extract the foreign body, if it can be done, bringing edges of cut peritoneum together and stiching them, and finally using continued suture to close outer wound. If resection of bowel must be performed, every endeavor should be made to save the mesenteric portion. His diagrams showed in a very plain manner the condition of the bowel after resection. He uses interrupted suture of No. 2 carbolized silk after resection, and explained at length his manner of introducing the suture, which was Lambert's suture, somewhat different from that commonly employed. He found in all his cases that extravasation of the contents of the bowel occurred. He laid down the rule that if no hemorrhage or sign of injury to the bowel occurs after perforating gunshot wounds, the points of entrance and exit will always heal quickly. He claims that in the present condition of operative surgery, many cases of severe gunshot injury of of the abdomen should and will recover under proper treatment.

THE SIGNIFICANCE OF BLOODY DISCHARGES FROM THE BOWELS IN CHILDREN,

By Dr. Frank Woodbury, of Philadelphia.

The occurence of blood in the alvine dejections of a young child, whether existing in small amount or large enough to constitute actual hemorrhage is a symptom that excites alarm. This accident in childhood is generally regarded as of more serious import than in adults. System-

atic writers on diseases of children make no reference to intestinal hemorrhage in children, or speak of it only incidentally. Like hæmatemesis, bleeding from the intestines is merely symptomatic. The term melæna was anciently used to indicate black discharges from the stomach or bowels, or both. This may be due to medicinal substances, as bismuth, as well as to the action of the intestinal fluids upon effused blood, Blood may appear in the discharges from a lesion in the stomach, œsophagus, or upper air-passages, or even from without the body, being taken with the food, as a baby from nursing a bleeding nipple. The present consideration of the subject will be limited to bleeding from sources below the pylorus. The first question asked by the clinician is as to the site of the hemorrhage, the second is, what is its cause? Vascular piles were found by Allingham to be a cause in a boy three years old, who had bloody discharge from the rectum. Sedgwick calls attention to the existence of piles at an early age. Prolapse of the rectum is less frequently accompanied by hemorrhage in children than adults. The descent of the bowel is a secondary condition caused by weakness of the sphincter from a prolonged diarrhœa. Polypus of the rectum is more frequent in children than is generally supposed, and is usually accompanied by bleeding. Bryant says that in children this is the principal cause of hemorrhage from the rectum. These polypi may be mistaken for hemorrhoids, the treatment is much the same. It is rarely necessary to apply the ligature in children. The usual site of the polypi is inside the internal sphincter, from two to six inches within the bowel. The pedicles may be several inches in length. Foreign bodies may cause ulceration and hemorrhage, such as pieces of bone, glass, etc., swallowed by the children; for substances may be introduced from without. Dysentery and entero-colitis, if of sufficient severity, will cause small quantities of blood, to appear during the height of the inflammation. If ulcerations have occurred, large quantities will appear. Masses of worms may cause enough irritation to produce some bleeding. Intussusception of the bowel is accompanied by the passage of blood. A discussion of the treatment of intussusception was next given. Ulceration of the small intestines may be due to sloughing of necrosed follicles in simple catarrhal inflammation, or it may be tubercular in origin. Such a hemorrhage may simulate that from typhoid fever. Some of the causes of the hemorrhage are

less localized. Thus congestion of the mucous membrane is quite common in young infants with inflammation. The congestion may be secondary to diseases of the other viscera, as the spleen or liver. In some cases of bleeding the pathological condition is not well understood. Melaæna neonatorum was here referred to. In some cases purpura hemorrhagica is a cause of the bleeding. Blood sometimes appears in the discharges during the specific fevers. Attention has recently been directed to cases of visceral rheumatism in the adult, The doctor met a case last year in which a boy, eight years of age, during an attack of acute articular rheumatism, was seized with obstinate constipation and a discharge of blood from the bowels.

ENLARGED TONSILS, AND HOW THEY SHOULD BE TREATED.

By Dr. Dudley S. Reynolds, of Kentucky.

Enlarged tonsils nearly always coexist with chronic thickening of the nose and pharynx, and constitute a great source of anxiety. The tonsils are lymphatic glands, and their enlargement has the same significance as that occurring in other lymphatic glands of the body.

It is a part of a general lympatic obstruction due to a state of perverted nutrition. We must not attack one lymphatic gland that is engorged with lymph There is nothing to show that enlarged tonsils are due to inherited struma. Often children are taken to specialists, who cut or burn the tonsils, entirely ignoring constitutional treatment. In 10,012 persons he had examined with nasopharyngeal trouble, 8,062 had enlarged tonsils, and in 8,654 of the cases the patients lived largely on food containing artificially produced glucose that does not nourish well. In his region maple sugar and syrup were largely taken, and he found them to aggravate any engorgement of the lymphatic tracts. If oils, fats, and animal food were taken more by children, instead of so much sweets and cooked fruits, which depreciate the system, enlarged tonsils would not be so frequent. Starvation is found to produce lymphatic engorgement. Many disasters, as impairment of voice, etc., follow cutting. Local treatment alone never can cure, but a combination of local and constitutional measures gives relief. Often it is only possible to produce an amelioration of symptoms. Frequent bathing, milk

and animal food, and plenty of out-door exercise were recommended.

INCONTINENCE OF URINE IN CHILDREN,

By Samuel S. Adams, of the District of Columbia

He has examined all the literature of the subject, including articles in German, French, Italian and Spanish, from the year 1784 to the present date. In 1784, Mitchel wrote as clearly on the disease as any subsequent author, and its pathology was as well understood then as now. From birth the child instinctively voids its urine, as the act is reflex. About the eighteenth month the child begins to exercise complete control over the sphincter, after this time incontinence is attributed more to carelessness than to a pathological condition. This he considers a great injustice, particularly as children are often punished. All of his cases have had a specific cause. There are three varieties of incontinence. 1. Where there is a constant dribbling, this is not frequent. Two such cases he had seen were due to vesical calculi. 2. Intermittent incontinence, often met with in girls. They lose control of the sphincter before getting to the closet. 3. Nocturnal incontinence. The same causes that produce seminal emissions in adults bring on this condition in children. Enuresis is often surperceded by seminal emissions, and the same remedies often relieve both conditions. It is a conservative process following undue irritation, occurs most frequently between eight and twelve years. Cases were then cited in which the causes were phimosis, calculi, ascarides in the rectum and vagina, hip disease, and amorous dreams. He does not approve of chloral for children. In exalted nervous conditions the bromides are to be given, belladonna is the best to allay irritability and relax spasm. Circumcision is often necessary

Dr. Reed mentioned a set of cases in which the incontinence was due to a want of tonicity of the bladder with partial retention of urine. Here strychine is of benefit.—*N. Y. Med. Record, May 10.*

NEWS ITEMS.

It is with pleasure that we notice the appearance of the *Eco Cientifico de los Villas*, a monthly medical publication

which is edited in Sagua la Grande, Cuba, by our talented friend, Dr. Augustin W. Reyes. Dr. Reyes is one of the leading contributors to Cuban medical literature: his writings always command the attention of the reader, and are distinguished by their elegance and instructiveness. Dr. Reyes is not unknown to some of our readers; a translation of a very interesting paper by him, on "Fiebre de Borras," or yellow fever of Creoles, appeared in this journal two years ago, and attracted considerable attention on account of the bold stand taken by the author as an opponent to the doctrine of Creole immunity against yellow fever, a subject which he is still debating with vigor before an incredulous Cuban public. We sincerely hope that Dr. Reyes will succeed in his journalistic enterprise; we are sure that if talent and ability are the essentials of success, the *Eco* will prosper.

A Suggestion for Chloroform and Ether Administration.—To overcome a repugnance to the odor of chloroform in certain patients, Prof. Nussbaum, of Munich, has a few drops of oil of cloves placed on the towel before giving the anæsthetic The addition of one part to six of cologne to ether makes it much more easy of administration in some cases.

Publications Received.

Peroxide of Hydrogen in Suppurative Conjunctivites and Mastoid Abcesses, with a Report of Two Cases. By A. E. Prince, M. D., of Jacksonville, Illinois. Reprint from St. Louis Medical Journal.

Aneurism of the Femoral Artery and a Knife Wound of the Intestines. By W. O. Roberts, Professor of Surgical Pathology and Operative Surgery in the University of Louisville. Reprint from American Practitioner, October and January, 1884.

Brain Exhaustion and its treatment. By J. Leonard Corning, M. D., New York. Reprint from New York Medical Journal.

Ecepcion de Incapacidad Mental Proveniente de Contusiones Violentas Sobre el Craneo, par Manuel Adolfo Olachea, Doctor en Medicina y Cirujia de la Universidad Mayor de San Marcos de Lima, etc. Montevideo Imprenta calle de Rins y Beechi, 1881.

Transactions of the New York Medico-Chirurgical Society, 1883, Vol. iii.

Report of Proceedings Tennessee State Board of Health. Quarterly Meeting, Nashville, April 1st aud 2d, 1884.

Notes on the Opium Habit. By Asa P. Mylert, Member of Medical Society, in the County of New York, etc., G. P. Putnam's Sons, New York, 1884.

Epileptic Insanity. By Philip Zenner, A. M., M. D., Cincinnati, Ohio. Reprint from Cincinnati Lancet and Clinic.

Iodoform in Dental Surgery. By C. F. W. Bodecker, D. D. S., M. D. S., New York. Reprint from Independent Practitioner, March and April, 1884.

Elementary Principles of Electro-Therapeutics for the use of Physicians and Students. Prepared by C. M. Haynes, M. D.

Shakespeare as a Physician. By J. Portman Chesney, M. D. J. H. Chambers & Co., Publishers, St. Louis, Mo.

A Year-Book of Surgery for 1883. Edited by Charles H. Knight, M. D. G. P. Putnam's Sons, New York.

A Year-Book of Therapeutics for 1883. Edited by Royal W. Amidon, M. D. G. A. Putnam's Sons, New York.

Eczema and his Management. By L. Duncan Bulkey, A. M., M. D. Second Edition: G. P. Putnams's Sons, New York.

A Treatise on Ophthalmology for the General Practitioner. Illustrated. By Adolf Alt, M. D. J. H. Chambers & Co. Publishers and dealers in Medical Books, Chicago, Ill., St. Louis, Mo., Atlanta, Ga., 1884.

Medical Annals of Baltimore from 1608 *to* 1880, *Including Events, Men and Literature.* To which is added a subject index and record of public services by John R. Quinan, M. D., Mem. Med. and Chir. Fac. Md. Baltimore, 1884.

Twenty-Third Annual Report of Cincinnati Hospital, for the Fiscal Year Ending December 31, 1883, H. M. Jones, Superintendent.

El Ensayo Medico, Ano I, Mes. IX, No. 18, Caracas.

Lessons in Longevity, Paragraphs on Home Hygiene, and the Art of Prolonging Life. By John B. Hamilton. M. D.

Medical Diagnosis with Special Reference to Practical Medicine. By J. M. Da Costa, M. D., LL. D., etc. Sixth Edition, Revised. Phila. J. B. Lippincott & Co.

Congenital Lipoma. By A. Jacobi, M. D. Reprint from *Archives of Pediatrics.* February, 1884.

One Hundredth Anniversary of the Foundation of the Medical School of Harvard University, Oct 17, 1883, *Cambridge.* J. Wilson & Son, University Pren., 1884.

Sexual Neurasthenia [*Nervous Exhaustion*], *Its Hygiene, Causes, Symptoms and Treatment.* By George M. Beard, M. D. [Posthumous manuscript]. Edited by A. D. Rockwell, A. M., M. D. New York: E. B. Treat.

METEOROLOGICAL SUMMARY—APRIL. STATION—NEW ORLEANS.

DATE.	Daily Mean Barometer.	Daily Mean Temp'rature	Daily Max. Temp'rature	Daily Min. Temp'rature	Daily Rain-fall, inches.
1	29.938	72.9	77.6	64.7	....
2	29.961	71.5	79.5	65.3	....
3	30.148	60.7	66.5	53.7	....
4	30.090	62.4	67.0	55.3	.03
5	29.776	55.9	62.9	52.0	2.96
6	29 952	62.5	70.0	51.9	....
7	29.999	66.1	76.5	57 2	....
8	30 044	66.5	75.0	62.0	.01
9	30.151	59.3	63.5	53.0	....
10	30.059	64.9	71.0	55.8	....
11	29.953	61 3	66.0	56.0	.63
12	29.872	10.1	77.0	56.0	1.20
13	29.895	74.6	81.3	67.6	....
14	29.724	15.7	80.0	72.1	....
15	29.842	73.4	81.4	65.8	....
16	29.946	73.1	80.0	66.5	....
17	30.007	71.9	80.0	63.4	....
18	29.934	75.9	81.7	69.0	....
19	29.828	76.6	82.0	71.5	....
20	29.776	73.7	80.0	67.5	1.64
21	29.849	66.5	71.1	63.5	.01
22	30.016	60.1	65.0	57.0	...
23	30.117	58.3	64.8	52 0	....
24	30.117	61.4	68.0	50.0	....
25	30.037	66.2	71.1	55.8	....
26	29.967	69.5	76.0	60.7	....
27	30.042	72.6	79.3	65.0	....
28	30.078	73.7	80.7	65.0	....
29	30.095	73.7	80.0	67.4	....
30	30.050	74.1	80.0	68.0	....
31	.....	....	....	....	....
Sums	.....	....	....	....	6.48
Means	29.975	68.2	74.5	61.0	....

GENERAL ITEMS.

Highest Barometer, 30.210. 9th.
Lowest Barometer, 29.647. 5th.
Monthly Range of Barometer, .563.
Highest Temperature, 82.0. 19th.
Lowest Temperature, 50.0. 24th.
Greatest daily range of Tempert'e, 21.0.
Least daily range of Temperature, 7.5.
Mean daily range of Temperature, 13.5.
Mean Daily Dew-point, 56.6.
Mean Daily Relative Humidity, 69.2.
Prevailing Direction of Wind, S.
Total Movement of Wind, 4313 Miles.
Highest Velocity of Wind and Direction, 26 Miles, E.
No. of foggy days, 0.
No. of clear days, 10.
No. of fair days, 10 .
No. of cloudy days, 10.
No. of days on which rain fell, 7.
Dates of lunar corona, 10.

COMPARATIVE TEMPERATURE.

1873	67.0	1879	67.9
1874	65.6	1880	71.2
1875	65.3	1881	67.2
1876	67.1	1882	72.5
1877	68.6	1883	71.4
1878	67.4	1884	

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	1.74	1879	9.17
1874	13.62	1880	6.88
1875	8.05	1881	3.92
1876	6.41	1882	4.83
1877	4.79	1883	14.20
1878	1.51	1884	

M. HERMAN, *Corp'l Signal Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM APRIL 26TH, 1884, TO MAY 24TH, 1884, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia	Total Mortality.
May 3d	0	5	13	21	1	40
May 10th	0	6	19	4	11	40
May 17th	0	4	24	11	10	29
May 24th	0	14	12	11	3	40
Total	0	29	68	47	25	149

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Jan. '83-1y. **NEW ORLEANS.**

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trIn its preparation the temperature employed does not exceed 150 deg. Fahr., thereby retaining all the nupitive and digestive agents unimpaired. Extracts of Malt are made from Barley alone, by the German rocess, which directs that the mash be heated to 212 deg. Fahr., thereby coagulating the Albuminoids, and almost wholly destroying the starch digestive principle, Diastase.

LIST OF MALTINE PREPARATIONS.

MALTINE (Plain).
MALTINE with Hops.
MALTINE with Alteratives.
MALTINE with Beef and Iron.
MALTINE with Cod Liver Oil.
MALTINE with Cod Liver Oil and Pancreatine.
MALTINE with Hypophosphites.
MALTINE with Phosphorus Comp
MALTINE with Peptones.
MALTINE with Pepsin and Pancreatine.
MALTINE with Phosphates.
MALTINE with Phosphates Iron and Quinia.
MALTINE with Phosphates Iron, Quinia & Strych.
MALTINE Ferrated.
MALTINE WINE.
MALTINE WINE with Pepsin and Pancreatine.
MALTO-YERBINE.
MALTO-VIBURNIN.

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WM. PORTER, A. M., M. D., St. Louis, Mo.

E. S. DUNSTER, M. D., Ann Harbor, Mich., Prof. Obs. and Dis. Women and Children University and in Dartmouth College.

THOMAS H. ANDREWS, M. D., Philadelphia, Pa., Demonstrator of Anatomy, Jefferson Medical College.

B. F. HAMMEL, M. D., Philadelphia, Pa., Supt. Hospital of the University of Penn.

F. R. PALMER, M. D., Louisville, Ky., Prof. of Physiology and Personal Diagnosis, University of Louisville.

HUNTER McGUIRE, M. D., Richmond, Va., Prof. of Surgery, Med. Col. of Virginia.

F. A. MARDEN, M. D., Milwaukee, Wis., Supt. and Physician, Milwaukee County Hospital.

L. P. YANDELL, M. D., Louisville, Ky., Prof. of Clinical Medicine and Diseases of Children, University, Louisville.

JOHN. A. LARRABEE, M. D., Louisville, Ky., Prof. of Materia Medica and Therapeutics, and Clinical Lecturer on Diseases of Children in the Hospital College of Medicine.

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WALTER S. HAINES, M. D., Chicago, Ill., Professor of Chemistry and Toxicology, Rush Medical College, Chicago.

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A. A. MEUNIER, M. D., Montreal, Canada, Prof. Victoria University.

H. F. BIGGAR, M. D., Prof. of Surgical and Medical Diseases of Women, Homœopathic Hospital College, Cleveland, Ohio.

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DR. T. F. GRIMSDALE, Liverpool, England, Consulting Physician, Ladies' Charity and Lying-in Hospital.

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DOSE.—One teaspoonful *three* or *more* times a day, as indicated. As a local application to ulcers, wounds and abscesses, or as a gargle, mouth-wash, inhalent or injection, it can be used *ad libitum*, diluted as desired.

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FORMULA.—Each fluid drachm of "*Lithiated Hydrangea*," represents thirty grs. of *Fresh* Hydrangea, and three grs. of *chemically pure* Benzo Salicylate of Lithia. Prepared by our improved process of osmosis, it is *invariably* of *definite* and *uniform* therapeutic strength, and hence can be depended upon in clinical practice.

DOSE.—One or two teaspoonfuls four times a day.

HYDRANGEA has been used with great satisfaction in calculous complaints, and abnormal conditions of the Kidneys, and reports have been published by Drs. Atlee, Horsley, Monkur, Butler and others, all confirming its value in Kidney and Bladder diseases. As the utility of *LITHIA* in Kidney diseases and of the uric acid diathesis is well-known to the profession, the advantage of Hydrangea and Lithia *combined* in a form *acceptable to the stomach*, must be apparent to every intelligent physician, and, therefore, he is at once prepared to recognize the value of *LITHIATED HYDRANGEA* in

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The Charity Hospital contains nearly 700 beds, and received, during the last year, nearly six thousand patients. Its advantages for practical study are unsurpassed by any similar institution in this country. The Medical, Surgical and Obstetrical Wards, are visited by the respective Professors in charge daily, from eight to ten o'clock A. M., at which time all the Students are expected to attend, and familiarize themselves, *at the bedside of the patients*, with the diagnosis and treatment of all forms of injury and disease.

The regular lectures at the hospital, on Clinical Medicine by Professors Bemiss, Elliott and Joseph Jones, Surgery by Professors Richardson and Logan, Diseases of Women and Children by Professor Lewis, and Special Pathological Anatomy by Professor Chaillé, will be delivered in the amphitheater on Monday, Wednesday, Thursday and Saturday, from 10 to 12 o'clock, A. M.

The Administrators of the Hospital elect, annually, after competitive examination, *twelve resident Students*, who are maintained by the Institution.

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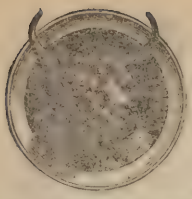
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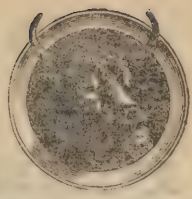
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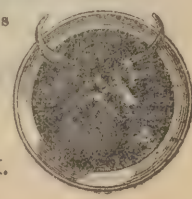


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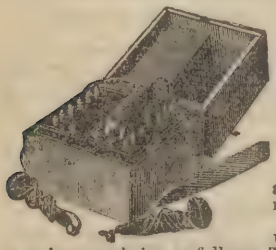
One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

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Any strength and intensity desired can be obtained for use in Electro-therapeutics. This Battery is constructed on an improved plan, as follows: The zinc and carbon plates are arranged in couples securely clamped to hard rubber plates with thumb screws. These thumb screws are also used for binding posts. All the connections are positive and brought near together, thus lessening the internal resistance. The cells are made in sections of six, composed of one solid piece of hard vulcanized Rubber. By this arrangement a section can be handled, emptied, cleaned and refilled as easily and quickly as one cell. A hard Rubber drip cup is placed by the side of each section of cells, to receive the zincs and carbon plates when removed from the cells. The rubber plates, which hold the zinc and carbons, project over on one side enough to cover the cells, when the zinc and carbons are placed in the drip cups. The under side of this projection is covered with soft rubber, which is clamped over the sections, which makes the cells water tight, this alone recommends the Battery.

We claim superiority over all other batteries for the reason that by the improved plan of construction and close connections we gain more quantity and intensity of current. We combine all that is desirable in either a Galvanic or Faradic Battery, a combination never before attained. We furnish it with or without the Faradic coil. It weighs less than any other of the same power. It can be carried without spilling the fluid, thus being the only perfect portable Galvanic Battery made. We will be pleased to send circulars giving full information, price, &c., free on application.

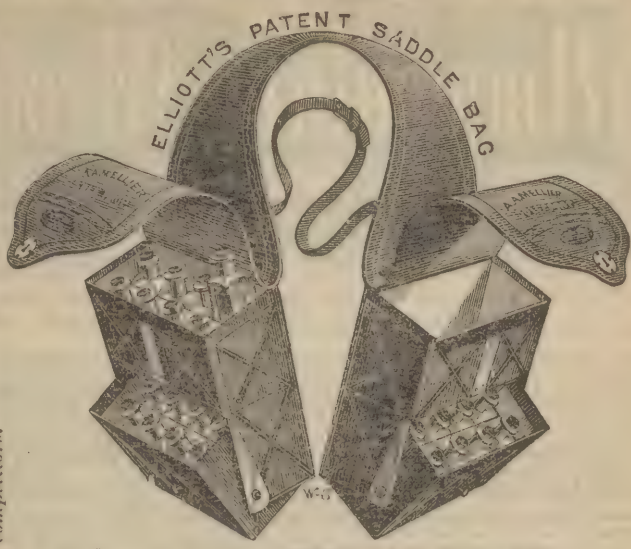
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The Best SADDLE BAG in the Market.

IT HAS NO DRAWERS. It is made of one Piece. Nickel-plated Finishings. No Seams or Stitches.

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TONGALINE,

Or Liquor Tongæ Salicylatus.

THE NEW SPECIFIC FOR NEURALGIA AND RHEUMATISM.

Tonga is a product of the Tonga or Friendly Islands, and has long been used as a domestic remedy by the natives of the Fiji Group. It was introduced to the notice of the medical profession by Drs. Ringer and Murrell, of London, England, who have made some very thorough and most satisfactory experiments as to its therapeutic value. Their high claims for its efficacy as a remedy for neuralgia and rheumatism have been extensively corroborated by the most eminent medical authorities of both continents; when used in conjunction with salicylic acid, it has had a surprisingly happy effect on the most obdurate cases of neuralgia, especially that of the cranial nerves. In chronic arthritis it is invaluable.

TONGALINE is an efficacious and elegant preparation of Tonga, with powerful salicylates, and commends itself to the medical profession.

EACH FLUID DRACHM OF TONGALINE REPRESENTS:

Tonga	30 grains.	Pilocarpin Salicylate	1-100 grain.
Extractum Cimicifugæ Racemosæ	2 grains.	Colchicin Salicylate	1-500 grain.
Sodium Salicylate	10 grains.		

Of the two ounces of TONGALINE which you gave me, one ounce I used myself, taking it in drachm doses at intervals of sixty minutes. I was suffering at the time with a violent facial neuralgia, which came on every night at eight o'clock, and lasted unless I took butyl-chloral, until after midnight. After the second dose of TONGALINE I went to sleep and did not wake up until daylight. I felt bright and fresh the ensuing day, but in the evening there was a recurrence of neuralgia. I took two doses of Liquor Tongæ and was again relieved. On the third evening I anticipated a recurrence of my malady, and took a dose as precautionary measure. It did not come on nor have I had a recurrence of it since. Shortly after arising each morning, after taking the remedy, I had a copious easy movement of the bowels, which was supplemented by another during the day. The balance of the remedy was used in a similar manner and with similar results on Mr. A. S. Lion.

I have since prescribed TONGALINE in two cases of facial neuralgia, with marked benefit in both instances. Should you wish it, I will give you the notes which I took in all of these cases.

Respectfully,

FRANK L. JAMES, M. D.
Professor of Chemistry and Toxicology, St. Louis College Physicians and Surgeons.

A. A. MELLIER,

SOLE PROPRIETOR, St. Louis.

REGISTERED COSMOLINE TRADE MARK

Unguentum Petrolei

Prepared by E F Houghton & Co Philadelphia U.S.A.

Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

SAMPLES FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, Cosmoline (Unguentum Petrolei) is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the paraffines and olefines of the formulæ C16H34 and C16H32. It contains but a small percentage of the paraffines and olefines, corresponding to the formulæ C7 H16 and C7 H14 respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

---

291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as manufactured by E. F. Houghton & Co., Philadelphia, and believe them well adapted to the purposes for which they are designed. As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York,
Visiting Surgeon to Presbyterian Hospital, etc.

---

218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & Co.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæcological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly,

JOHN H. PACKARD, M. D.

1031 WALNUT STREET, PHILADELPHIA.

Messrs. E. F. HOUGHTON & Co.:

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere. I cannot too highly commend it as an application in various skin diseases.

Yours truly,

JOHN V. SHOEMAKER, A M, M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases.

Prepared by E. F. HOUGHTON & Co., 211 S. Front St.; Philadelphia.

G. R. FINLAY & CO.,

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GUARANTEED TO BE FRESH AND UNADULTERATED

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and all orders will be filled with attention to furnishing such manufactures as are designated. A full stock of

Pure Liquors and Wines of all kinds

are also kept on hand for medicinal purposes.

Grimault & Co. Quinquina Ferruginous Wine.

The preparations of Iron are not always well borne by the stomach. In order to obviate such intolerance, it becomes necessary to combine them with Quinquina, but such a combination can only be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina, an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA A FERRUGINEUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty years.

The VIN DE QUINQUINA FERRUGINEUX DE GRIMAULT ET CIE. must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and a desert spoonful for children.

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Pepsic Peptones, with Beef

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These perfectly pure Peptones contain only pure beef meat well digested and rendered assimilable by pepsin, always officinal and regular, extracted from the stomach of the sheep, digesting with ease from 700 to 800 times their weight of fibrine, not found in commerce. They possess extraordinary power as food, and exercise on the whole economy extraordinary nutritive action. They must not be confounded with those peptones prepared from the stomachs of sheep or the pancreas of pigs, containing as much of substances produced by the digestion of the mucous membrane of the stomach as of beef. There are three varieties:

1. *Wine of Pepsic Peptones of Chapoteaut.*—Containing in each wineglassful the peptone from 10 grammes of beef (2½ drams). Taste agreeable, constituting an excellent food which sick persons and children take with pleasure. It should be taken on commencing meals. Dose, one to two wineglassfuls.

2. *Conserve of Pepsic Peptone, Chapoteaut.*—This product is liquid, neutral, aromatic and easily kept. Each teaspoonful is equivalent to twice its weight of beef, and may be taken in broth, wine, preserves or syrup, or added to nutritive enemata.

3. *Powder of Pepsic Peptone, Chapoteaut.*—This preparation, possessing only the real flavor of meat, presents the advantage of being easily taken in the first spoonful of soup. It is readily soluble in water, broth or wine. Each teaspoonful represents nearly 4 grammes (1 dram) of pure peptone, equal to 5 drams or more than half an ounce of beef, entirely digested and ready for assimilation. Each vial contains 30 grammes or nearly one ounce of peptone, equivalent to nearly half a pound of beef, sufficient to nourish an adult.

Especially indicated in the following affections: Anæmia, Dyspepsia, Cachexia, Debility, Atony of Stomach and Bowels, Convalescence, food for nurses, children and the aged and of phthisical and diabetic subjects.

Syrup of Horse Radish with Iodine,

PREPARED COLD BY GRIMAULT.

It is a good combination of Iodine with the juices of the antiscorbutic plants, water cresses, horse radish, cochlearia, and water trefoil. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures with iodide of potassium and iron, and is a very useful medicine for children, in the lymphatic cachexia and phthisis. The syrup of horse radish with iodine is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each table spoonful represents 5½ centigrams of iodine. The daily dose for children is 1 table spoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. Depot No 8 Vivienne street, Paris. For sale in all drug stores

Soluble Phosphate of Iron.

OR PYROPHOSPHATE OF IRON AND SODA.

DELERAS, DOCTOR AND SCIENTIST, PARIS.

This colorless preparation, with no taste or flavor of iron, contains 20 centigrammes (3⅓ grains) of the Pyrophosphate of Iron and Soda to each tablespoonful. The intimate union of these essential elements of bone and blood, Iron and Phosphorus in a soluble state, makes the best chalybeate in Chlorosis, Anæmia, Scrofula, Lymphatitis, Convalescence, etc. It does not precipitate in the fluids of the stomach, which insures rapid assimilation, never producing constipation, owing to the presence of a small quantity of the Sulphate of Soda, produced during its preparation.

DUSART'S SYRUP

—OF—

LACTO-PHOSPHATE of LIME,

AN ALIMENT AS WELL AS A MEDICAMENT,

The properties of which are scientifically founded on physiological experiments, has now received the sanction of several years' successful trial by the British medical profession as producing durable reconstituent effects IN ALL CASES OF CACHEXIA, OR ADYNAMIA, when nutrition has been impaired by acute or chronic complaints.

LACTO-PHOSPHATE of LIME is PHOSPHATE OF LIME—the natural restorer of muscular fibre as well as bones—made assimilable by the action of its natural solvent, lactic acid.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament specially invaluable for the above cases when complicated with anæmia

DOSES—For Adults, 3 to 6 Tablespoonfuls a day, for Children 3 to 6 Dessertspoonfuls

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The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs. It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas. The urine does not take any odour. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrh.

The Santal of Midy is prepared in small round, transparent capsules, it is chemically pure, and obtained by or from the distillation of Citrine Santal of Bombay.

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Under this form Sub-Nitrate of Bismuth combines intimately with water and is immediately absorbed, owing to the minute division of the drug. To this is due its great efficacy in diarrhœas and dysentery, affections of the stomach, gastritis, gastralgia, colic and ulceration of the intestines. It is the most unobjectionable and the surest remedy for combatting the diarrhœa which is the prodrome of cholera in times of epidemic.

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THOMAS M. MARKOE, M. D., Professor of Surgery.
T. GAILARD THOMAS, M.D., Professor of Clinical Gynæcology.
JOHN T. METCALF, M. D., Emeritus Professor of Clinical Medicine.
HENRY B. SANDS, M. D., Professor of the Practice of Surgery.
JAMES W. McLANE, M. D., Professor of Obstetrics, of Gynæcology, and of the Diseases of Children.
THOMAS T. SABINE, M. D., Professor of Anatomy.
CHARLES F. CHANDLER, Ph. D., Professor of Chemistry and Medical Jurisprudence.
EDWARD CURTIS, M. D., Professor of Materia Medica and Therapeutics.
FRANCIS DELAFIELD, M. D. Professor of Pathology and Practical Medicine.
JOHN G. CURTIS, M. D., Adjunct Professor of Physiology and Hygiene; Secretary of the Faculty.
WM. DETMOLD, M. D., Emeritus Professor of Military and Clinical Surgery.
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CORNELIUS R. AGNEW, M. D., Clinical Professor of Diseases of the Eye and Ear.
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WILLIAM T. BULL, M. D., Demonstrator of Anatomy.
GEORGE HENRY FOX, M. D., Clinical Professor of Diseases of the Skin.
ROBERT F. WEIR, M. D., Clinical Lecturer on Surgery.
WILLIAM S. HALSTEAD, M. D., First Assistant Demonstrator of Anatomy.
FRANCIS R. MARKOE, M. D., Second Assistant Demonstrator of Anatomy.
T. MITCHELL PRUDDEN, M. D., Director of the Physiological and Pathological Laboratory of the Alumni Association.

THE COLLEGIATE YEAR consists of One Session, attendance upon which is required for graduation. The Session of 1883-84 begins October 1st, and continues until May, with short vacations at Thanksgiving and at Christmas.

TUITION is by the following method:

I. DIDACTIC LECTURES—During the Session, from two to six lectures are given daily by the Faculty. Attendance obligatory.

II. CLINICAL TEACHING—Ten Clinics, covering all departments of Medicine and Surgery, are held weekly throughout the entire year in the College Building. In addition, the Faculty give daily clinics at the large City Hospitals and Dispensaries (such as the Bellevue, Charity, New York and Roosevelt Hospitals, the New York Eye and Ear Infirmary, the Woman's Hospital, etc.,) as a regular feature of the College curriculum. Attendance optional.

III. RECITATIONS are held daily. Attendance optional.

IV. PERSONAL INSTRUCTION—Personal Instruction is given in *Practical Anatomy, Operative Surgery, Minor Surgery, Physical Diagnosis, Otology, Laryngoscopy, in Normal and Pathological Histology and the examination of the Urine.* Attendance optional, except upon Practical Anatomy.

EXPENSES—The *necessary* expenses are a yearly matriculation fee ($5), the fees for the lectures of the Session, $20 for the course on each branch, or $140 for the entire curriculum, the Practical Anatomy fee ($10 and a small charge for material), and a Graduation fee of $30. The GRADUATING COURSE requires three years' study, with a preceptor (including the time spent in attendance at the College), attendance upon two full courses of lectures, the second, at least, at this College, and upon one course of Practical Anatomy. Remissions and reductions of lecture fees are made to graduates and students who have already attended two full courses. *All fees are payable in advance.* Board can be had for from $5 to $9 a week, and the Clerk of the College will aid students in obtaining it.

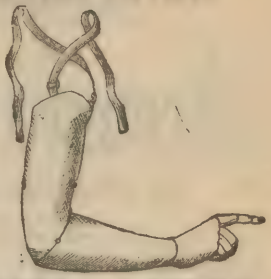
HOSPITAL APPOINTMENTS—Four appointments a year upon the House Staff of Bellevue Hospital are awarded by the Faculty, to those who pass the best examination for the degree of M. D. Public competitive examinations, by the Hospital Authorities are open to Graduates of this College for similar positions at numerous other Hospitals.

For the Annual Catalogue and Announcement, or further information, address JOHN G. CURTIS, M. D., Secretary of the Faculty, College of Physicians and Surgeons, corner of Twenty-Third Street and Fourth Avenue, New York.

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"I do not hesitate to say that I have been agreeably surprised at the facility and ease with which Mr. J. L. Gubernator uses an Artificial Leg made by Mr. McDermott of this city, and said to be on the Bly Patent. Having amputated Mr. Gubernator's limb, I feel interested and pleased with the result. Respectfully, A. W. SMYTHE, M. D.

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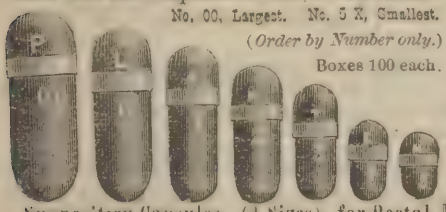
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We also have VAGINAL CAPSULES, various sizes, and those adapted for giving medicines to HORSES or CATTLE. 2 sizes (ounce and a half ounce), for liquids or solids. Box **10 Capsules,** either size, by mail **50 Cents.**

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The extensive Dispensing Department and complete Laboratory connected with my Wholesale Business enables me to give that careful attention to Physicians' Orders necessary to ensure filling them satisfactorily.

Having always exercised the greatest care in the selection of the crude materials employed, and making all pharmaceutical preparations of standard strength, in strict accordance with established and recognized formulas, I have earned and am entitled to the confidence of the profession.

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During my many years' experience I have always recognized the importance of establishing in our midst a LABORATORY which would enable Physicians to procure at home, with a guarantee of purity and reliability, the many elegant and really scientific preparations which have of late years become so popular with practitioners and patients. Supplied with the MOST APPROVED APPARATUS, and in charge of intelligent and experienced pharmaceutists, I may justly claim the products of my laboratory to be excelled by none in the country, and to be far superior to most others of foreign manufacture. I cannot attempt here to enumerate all the extensive list of my preparations, and will only call attention to the leading ones, which have, by their absolute reliability, elicited the praise and approbation of the leading physicians in this city.

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COD LIVER OIL with SOLUBLE PHOSPHATE OF LIME;
COD LIVER OIL, FERRATED;
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COD LIVER OIL, PHOSPHORATED;
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NUTRITIVE ELIXIR, (Beef, Cognac and Bitter Orange) NUTRITIVE ELIXIR, FERRATED, designed as SUBSTITUTES FOR DUCROS' ELIXIR, at more moderate prices.

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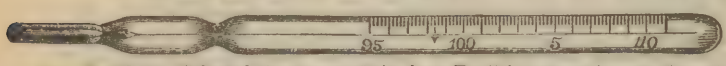
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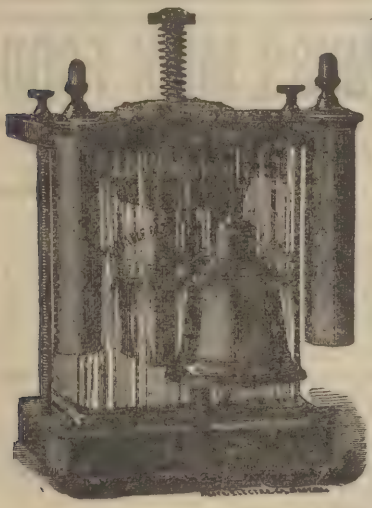
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THE REGULAR WINTER SESSION will begin October 3, 1883, and end about the middle of March, 1884. The plan of instruction consists of Didactic and Clinical Lectures, recitations and laboratory work in all subjects in which it is practicable. To put the laboratories on a proper footing a new building has been erected at an expense of thirty-five thousand dollars. It will contain laboratories fitted for instruction in Chemistry, Histology, Pathology, Materia Medica, Operative Surgery and Gynæcology.

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THE SPRING SESSION will begin about the middle of March and end the last week in May. The daily Clinics and special Practical Courses will be the same as in the Winter Session, and there will be Lectures on Special Subjects by the Members of the Faculty.

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CELERINA is the Nerve Tonic *sans pariel*. It *refreshes the tired brain* and imparts tone and vigor to the entire nervous system; therefore, it is of the *utmost value* in Nervous Exhaustion, Sexual Debility, Paralysis, Dysmenorrhœa, Spermatorrhœa, Hysteria, Chorea Weakness of old age, and *all* LANGUID conditions of the system.

After giving "CELERINA" a *fair trial*, I have found that, as a Nerve-Tonic and Vital Reconstructor, it *is what it claims to be.*
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The next annual course of instruction in this Department (now in the fiftieth year of its existence) will commence on Monday, the 23rd day of October, 1883, and terminate on Saturday the 29th day of March, 1884. The first four weeks of the term will be devoted exclusively to Clinical Medicine and Surgery at the Charity Hospital; Practical Chemistry in the Laboratory; and dissections in the spacious and airy Anatomical Rooms of the University.

The means of teaching now at the command of the Faculty are unsurpassed in the United States. Special attention is called to the opportunities presented for

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The Act establishing the University of Louisiana gives the Professors of the Medical Department the use of the great Charity Hospital, as a school of practical instruction.

The Charity Hospital contains nearly 700 beds, and received, during the last year, nearly six thousand patients. Its advantages for practical study are unsurpassed by any similar institution in this country. The Medical, Surgical and Obstetrical Wards, are visited by the respective Professors in charge daily, from eight to ten o'clock A. M., at which time all the Students are expected to attend, and familiarize themselves, *at the bedside of the patients*, with the diagnosis and treatment of all forms of injury and disease.

The regular lectures at the hospital, on Clinical Medicine by Professors Bemiss, Elliott and Joseph Jones, Surgery by Professors Richardson and Logan, Diseases of Women and Children by Professor Lewis, and Special Pathological Anatomy by Professor Chaillé, will be delivered in the amphitheater on Monday, Wednesday, Thursday and Saturday, from 10 to 12 o'clock, A. M.

The Administrators of the Hospital elect, annually, after competitive examination, *twelve resident Students*, who are maintained by the Institution.

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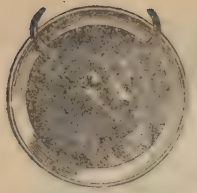
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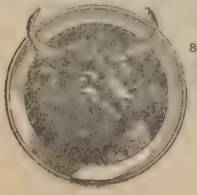
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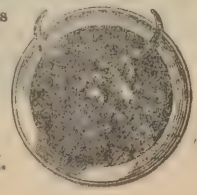


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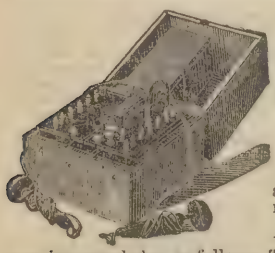
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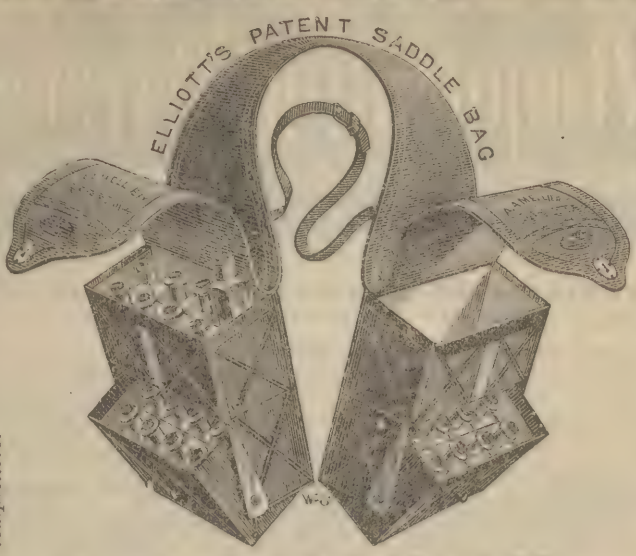
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Tonga	30 grains.	Pilocarpin Salicylate	1-100 grain.
Extractum Cimicifugæ Racemosæ	2 grains.	Colchicin Salicylate	1-500 grain.
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Cosmoline (Unguentum Petrolei) melts at about 100° Fah (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

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Emeritus Professor of Clinical Surgery in the University of New York,
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Very respectfully yours,

FRANK WOODBURY, M. D.
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Physician to the Pennsylvania Free Dispensary for Skin Diseases.

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These perfectly pure Peptones contain only pure beef meat well digested and rendered assimilable by pepsin, always officinal and regular, extracted from the stomach of the sheep, digesting with ease from 700 to 800 times their weight of fibrine, not found in commerce. They possess extraordinary power as food, and exercise on the whole economy extraordinary nutritive action. They must not be confounded with those peptones prepared from the stomachs of sheep or the pancreas of pigs, containing as much of substances produced by the digestion of the mucous membrane of the stomach as of beef. There are three varieties:

1. *Wine of Pepsic Peptones of Chapoteaut.*—Containing in each wineglassful the peptone from 10 grammes of beef (2½ drams). Taste agreeable, constituting an excellent food which sick persons and children take with pleasure. It should be taken on commencing meals. Dose, one to two wineglassfuls.

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3. *Powder of Pepsic Peptone, Chapoteaut.*—This preparation, possessing only the real flavor of meat, presents the advantage of being easily taken in the first spoonful of soup. It is readily soluble in water, broth or wine. Each teaspoonful represents nearly 4 grammes (1 dram) of pure peptone, equal to 5 drams or more than half an ounce of beef, entirely digested and ready for assimilation. Each vial contains 30 grammes or nearly one ounce of peptone, equivalent to nearly half a pound of beef, sufficient to nourish an adult.

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PREPARED COLD BY GRIMAULT.

It is a good combination of Iodine with the juices of the antiscorbutic plants, water cresses, horse radish, cochlearia, and water trefoil. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures with iodide of potassium and iron, and is a very useful medicine for children, in the lymphatic cachexia and phthisis. The syrup of horse radish with iodine is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each table spoonful represents 5½ centigrams of iodine. The daily dose for children is 1 table spoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. Depot No 8 Viviene street, Paris. For sale in all drug stores

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FESSENDEN N. OTIS, M. D., Clinical Professor of Venereal Diseases.
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GEO. M. LEFFERTS, M. D., Clinial Professor of Laryngoscopy and Diseases of the Throat.
WILLIAM T. BULL, M. D., Demonstrator of Anatomy.
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FRANCIS R. MARKOE, M. D., Second Assistant Demonstrator of Anatomy.
T. MITCHELL PRUDDEN, M. D., Director of the Physiological and Pathological Laboratory of the Alumni Association.

THE COLLEGIATE YEAR consists of One Session, attendance upon which is required for graduation. The Session of 1883-84 begins October 1st, and continues until May, with short vacations at Thanksgiving and at Christmas.

TUITION is by the following method:

I. DIDACTIC LECTURES—During the Session, from two to six lectures are given daily by the Faculty. Attendance obligatory.

II. CLINICAL TEACHING—Ten Clinics, covering all departments of Medicine and Surgery, are held weekly throughout the entire year in the College Building. In addition, the Faculty give daily clinics at the large City Hospitals and Dispensaries (such as the Bellevue, Charity, New York and Roosevelt Hospitals, the New York Eye and Ear Infirmary, the Woman's Hospital, etc.,) as a regular feature of the College curriculum. Attendance optional.

III. RECITATIONS are held daily. Attendance optional.

IV. PERSONAL INSTRUCTION—Personal Instruction is given in *Practical Anatomy, Operative Surgery, Minor Surgery, Physical Diagnosis, Otology, Laryngoscopy, in Normal and Pathological Histology and the examination of the Urine.* Attendance optional, except upon Practical Anatomy.

EXPENSES—The *necessary* expenses are a yearly matriculation fee ($5), the fees for the lectures of the Session, $20 for the course on each branch, or $140 for the entire curriculum, the Practical Anatomy fee ($10 and a small charge for material), and a Graduation fee of $30. The GRADUATING COURSE requires three years' study, with a preceptor (including the time spent in attendance at the College), attendance upon two full courses of lectures, the second, at least, at this College, and upon one course of Practical Anatomy. Remissions and reductions of lecture fees are made to graduates and students who have already attended two full courses. *All fees are payable in advance.* Board can be had for from $5 to $9 a week, and the Clerk of the College will aid students in obtaining it.

HOSPITAL APPOINTMENTS—Four appointments a year upon the House Staff of Bellevue Hospital are awarded by the Faculty, to those who pass the best examination for the degree of M. D. Public competitive examinations, by the Hospital Authorities are open to Graduates of this College for similar positions at numerous other Hospitals.

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SESSION OF 1883-4.

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The COLLEGIATE YEAR embraces the Regular Winter Session and a Spring Session. The REGULAR SESSION begins on Wednesday, September 19, 1883, and ends about the middle of March, 1884. During this Session, in addition to the regular didactic lectures two or three hours are daily allotted to clinical instruction. Attendance upon two regular courses of lectures is required for graduation. The SPRING SESSION consists chiefly of recitations from Text-Books. This Session begins about the middle of March and continues until the middle of June. During this Session, daily recitations in all the departments are held by a corps of Examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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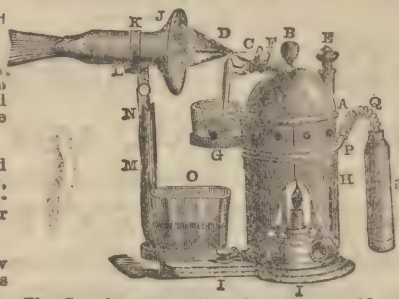
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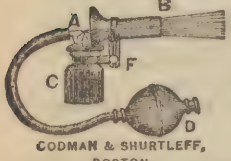
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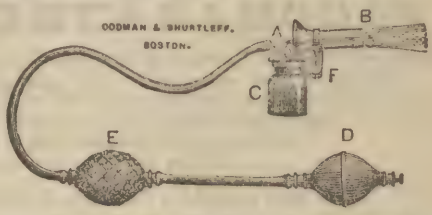


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RALPH N. ISHAM, M. D.,
Professor of the Principles and Practice of Surgery.
E. O. F. ROLER, A. M., M. D.,
Professor of Obstetrics.
SAMUEL J. JONES, A. M., M. D.,
Professor of Opthalmology and Otology.
J. H. HOLLISTER, M D.,
Professor of Clinical Medicine.
J. S. JEWELL, A. M., M. D.,
Professor of Nervous and Mental Diseases.
MARCUS P. HATFIELD, A. M., M. D.,
Professor of Diseases of Children.
LESTER CURTIS, A. M. M. D.,
Professor of Histology.

HENRY GRADLE, M. D.,
Professor of Physiology.
E. C. DUDLEY, A. M., M. D.,
Professor of Gynecology.
JOHN E. OWENS, M. D.,
Professor of Surgical Anatomy and Operations of Surgery.
OSCAR C. DE WOLF, M. D.,
Professor of State Medicine and Hygiene.
J. H. LONG, M. D.,
Professor of General and Medical Chemistry.
WALTER HAY, M. D., LL. D.,
Professor of Materia Medica. and Therapeutics.
F. C. SCHAEFER, M. D.,
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CHRISTIAN FENGER, M. D.,
Professor of Pathology and Pathological Anatomy.
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Professor of Clinical Medicine.
A. G. PAINE, M. D.,
Lecturer on Dermatology.
FRANK BILLINGS, M. D.,
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The Collegiate Year in this Institution consists of REGULAR AUTUMN AND WINTER SESSION and a special SESSION FOR PRACTITIONERS. THE REGULAR SESSION begins September 25, 1883, and closes March 26, 1884.

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FEES FOR COLLEGIATE YEAR (except Practitioners' Course), $75. Registration Fee, $5. Demonstrator's Ticket, $5. Laboratory Ticket, $5. Mercy Hospital Ticket, $6. Final Examination Fee, $30. For Practitioners' Course, including Laboratory, Anatomical and Hospital Tickets, $30.

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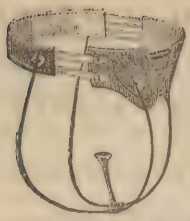
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J. M. DA COSTA, M. D.,
Practice of Medicine.

WM. H. PANCOAST, M. D.,
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Principles of Surgery and Clinical Surgery.

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CHARLES INSLEE PARDEE, M. D., Dean of the Faculty; Professor of Otology; Surgeon to the Manhattan Eye and Ear Hospital.
J. W. S. ARNOLD, M. D., Emeritus Professor of Physiology and Histology.
JOHN C. DRAPER, M. D., LL. D., Professor of Chemistry.
ALFRED L. LOOMIS, M. D., Professor of Pathology and Practice of Medicine; Visiting Physician to Bellevue Hospital.
WM. DARLING, M. D., LL. D., F.R.C.S., Professor of General and Descriptive Anatomy.
WILLIAM H. THOMPSON, M. D., Professor of Materia Medica, Therapeutics and Diseases of the Nervous System; Visiting Physician to Bellevue Hospital.
J. WILLISTON WRIGHT, M. D., Professor of Surgery; Visiting Surgeon to Bellevue Hospital.
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LEWIS A STIMSON, M. D., Professor of Physiology and Physiological Anatomy; Surgeon to Bellevue Hospital; Curator to Bellevue Hospital.
FANEUIL D. WEISSE, M. D., Professor of Practical and Surgical Anatomy; Surgeon to Workhouse Hospital, B. I.
STEPHEN SMITH, M. D., Professor of Clinical Surgery; Surgeon to Bellevue Hospital.
A. E. MACDONALD, LL. B., M. D., Professor of Medical Jurisprudence and Diseases of the Mind; Medical Superintendent of the New York City Asylum for the Insane.
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ADJUNCT LECTURERS.

F. R. S. DRAKE, M. D., Clinical Lecturer on Practice of Medicine; Visiting Physician to Bellevue Hospital.
N. M SHAFFER, M. D., Clinical Lecturer on Orthopœdic Surgery; Surgeon in charge of the N. Y. Orthopœdic Hospital.
P. A. MORROW, M. D., Clinical Lecturer on Dermatology.
JOSEPH E. WINTERS, M. D., Clinical Lecturer on Diseases of Children.
WILLIAM C. JARVIS, M. D., Clinical Lecturer on Laryngology.
LAWRENCE JOHNSON, M, D., Lecturer on Medical Botany.

THE PRELIMINARY SESSION will begin on Wednesday, September 19, 1883, and end October 3, 1883. It will be conducted on the same plan as the Regular Winter Session.

THE REGULAR WINTER SESSION will begin October 3, 1883, and end about the middle of March, 1884. The plan of Instruction consists of Didactic and Clinical Lectures, recitations and laboratory work in all subjects in which it is practicable. To put the laboratories on a proper footing a new building has been erected at an expense of thirty-five thousand dollars. It will contain laboratories fitted for instruction in Chemistry, Histology, Pathology, Materia Medica, Operative Surgery and Gynæcology.

Two to five Didactic lectures and two or more Clinical lectures will be given each day by members of the Faculty. In addition to the ordinarny clinics, *special clinical instruction*, WITHOUT ADDITIONAL EXPENSE will be given to the candidates for graduation during the whole Regular Session. For this purpose the candidates will be divided into sections of twenty-five members each. At these special clinics students will have excellent opportunities to make and verify diagnoses, and watch the effects of treatment. They will be held in the Wards of the Hospitals and at the Public and College Dispensaries.

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THE SPRING SESSION will begin about the middle of March and end the last week in May. The daily Clinics and Special Practical Courses will be the same as in the Winter Session, and there will be Lectures on Special Subjects by the Members of the Faculty.

It is supplementary to the Regular Winter Session. Nine months of continued instruction are thus secured to all students of the University who desire a thorough course.

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For Catarrh, dissolve a teaspoonful or two of the extract and a teaspoonful of salt in a pint of warm water and inject into the nostrils with a nasal douche twice a day.

For Sore Throat, dissolve a tablespoonful of the extract in half pint warm water, let it cool, and apply as a gargle repeatedly during the day.

For Gonorrhœa or Gleet, mix one part of the extract with three of water, inject two or three times a day.

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FOOD PRESERVATION.

To the Medical Profession

We desire to call the attention of the medical profession to a practical and successful Food Preservative, which has been perfected by Prof. R. F. Humiston, of Boston, and called REX MAGNUS or The Humiston Food Preservative. This is perhaps a fanciful and high sounding title, but it is not inappropriate. It is indeed a "Mighty King," for it conquers TIME.

REX MAGNUS *does absolutely preserve* meat, game, poultry, fish, milk cream, butter, eggs, vegetable juices and fluid extracts in their natural state, in all seasons and climates, perfectly fresh and sweet and for any reasonable time, while at the same time it ripens and makes meats better.

Solid Scientific Testimony.

Prof. Samuel W. Johnson, the well-known chemist, and for more than 25 years identified with the Scientific Department of Yale College, furnishes the following report concerning Rex Magnus:

"My tests of 35 days in daily mean temperature of 70°, on meats, &c., bought in open market have certainly been severe and I am satisfied that the different brands of Rex Magnus, The Humiston Food Preservative, with which I have experimented, have accomplished all claimed for them. So far as I have yet learned, they are the

ONLY PREPARATIONS THAT ARE EFFECTIVE,

and at the same time practicable, for domestic use. At the banquet on 'treated' meats at the New Haven House I could not distinguish between those which had been sixteen days in my laboratory and those newly taken from the refrigerator of the hotel. The oysters were perfectly palatable and fresh to my taste, and better, as it happened, than those served at the same time, which were recently taken from the shell. The roast beef, steak, chicken, turkey and quail, were all as good as I have ever eaten.

Rex Magnus is safe, tasteless, pure, and Prof. Johnson adds in his report: "I should anticipate no ill-results from its use and consider it no more harmful than common salt."

Invisible Agents of Disease.

It is well known to the medical profession, and to scientists generally, that there exist in the air, myriads of reproductive organisms, representing the lowest forms of vegetable and animal life. They are abundant at all seasons, but more especially during the hottest part of the year. These sporules and germs, as algæ, fungi, torulæ, bacteria, vibrios, etc., though invisible to the naked eye, are now recognized as not only the great cause of fermentative changes, putrefaction and decay, but they are also regarded as the prolific source of many of the inflammatory and purulent diseases. The "septic" or putrefactive changes in animal and vegetable matter, are principally due to these invisible agents, which precede and accompany chemical action.

So Simple, a Child Can Use.

REX MAGNUS is a simple and harmless combination of antiseptics and performs its work by destroying or holding in check these minute organisms. It is perfect in construction and always successful in use when applied according to the directions, which are so simple that a child can follow them. It is compounded on strictly scientific principles from pure and harmless ingredients, directly with a view to the uses for which it is intended.

How to Get It.

The proprietors of this great discovery are desirous that it should be thoroughly investigated by the medical profession throughout the country and will send a sample pound free to every physician who will agree to test it.

It is a great auxiliary of Health. Composed as it is of perfectly pure ingredients, it will not injure the most delicate system, and by counteracting the principles of decay and putrefaction it renders the food wholesome and healthful. It is therefore a great boon to invalids not only for this reason but because it also

Destroys Any Hidden Germs

of diseases and averts the dangers which would arise from their being taken into the weak and enfeebled system.

There have been at different times several worthless mixtures offered to the public, which have pretended to accomplish this great result, but they have signally failed. This is probably because their projectors have tried to preserve everything with one compound. A really scientific man would know better than this.

Different Brands Necessary.

The various kinds of food differ in their nature, character and component parts, and for their sure and safe preservation different antiseptics are required. Prof. Humiston has kept this point in view and for the various classes of food the company makes nine different preparations or brands of REX MAGNUS. They do not claim that what is designed for one thing will preserve another, nor do they claim for any of their preparations any more than they will perform.

Medical Endorsement.

It receives the unqualified endorsement of medical men of all schools wherever it has been brought to their notice. As a sample we append the remarks of three physicians who were present at the banquet above referred to.

"I particularly endeavored to detect the taste of any foreign substance," said Dr. C. A. Linsley, Dean of the Medical Department of Yale College, and Health Officer of New Haven, "but could not do so. I know of no other agent that will do what Rex MAGNUS has done, i. e., save meats and still be harmless and tasteless. I thought I could detect the treated chicken, but I was mistaken."

Dr. A. K. Winchell, a distinguished physician of New Haven, and also a member of the Board of Health, said: "I could detect nothing objectionable, and the meats served at the New Haven House dinner were excellent. Oysters which I ate later, that had been preserved by REX MAGNUS twenty-eight days, were simply luscious. It is a remarkably successful and useful combination."

Dr. B. H. Cheney (homœopathist), a member of the Board of Health, remarked, "I was both surprised and delighted. The beef was excellent, and I could not tell it from any other beef; nor could I taste the preservative in it or any of the meats."

Names and Prices.

The various brands and their retail prices are as follows: "Viandine" for preserving meats, poultry, fish and game, 50 cts. per lb. "Ocean Wave" for oysters, clams, lobsters, fish, &c., 50 cents per lb. "Pearl" for cream, $1.00 per lb. "Snow Flake" for milk, butter and cheese, 50 cents per lb. "Queen" for eggs, $1.00 per lb. "Aqua-Vitæ" for medical purposes and for keeping fluid extracts, $1.00 per lb. "Anti-Ferment," "Anti-Mold" and "Anti-Fly," 50 cents each.

Sample packages sent prepaid by mail or express as we prefer. Name your express office.

THE HUMISTON FOOD PRESERVING CO.,

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Fluid Extract of Ergot.

In presenting to the Medical Profession our Fluid Extract of Ergot, we fully realize the responsibility assumed in making the representations we do in regard to our preparation.

No article in the Materia Medica has so often disappointed the practioner, and scarcely any drug is more susceptible of change, deterioration and in time to become entirely inert. We have hesitated to ask the unconditional endorsement of the Profession, until we had fully demonstrated for ourselves the value of the Fluid Extract we make, but now, after more than six years continued evidence of its successful use in the hands of medical men throughout the country, during which time we have manufactured many thousands of pounds, we confidently claim for it a value and efficacy superior to any other preparation of this drug.

The menstruum used is that best adapted for extracting all the active matter, and retaining its full power. Each minim represents one grain of the freshly powdered drug. It is entirely free from Acid, and can be used subcutaneously without irritation in most cases, having in this respect a great advantage over the watery solutions, which decompos every rapidly. Our menstruum is simply Water, Alchohol and Glycerine, no heat whatever is used in its manufacture. Since adopting this formula, a number of valuable papers from foreign authorities have endorsed our view. Our large operations and long experience enable us to select the choicest importations of Ergot as offered, thus insuring material of unexceptionable quality. It will always give us pleasure to send samples to any member of the Profession who may desire to test its value, or confirm our representations, by experiment in private practice, or in institutions with which they may be connected.

Our list of Fluid Extracts embraces all those generally manufactured. We claim for them, careful selection of Crude Material, intelligent and accurate manipulation and concientious exactness in exery detail. Complete lists will be furnished upon application.

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Always FRESHLY PREPARED, and Superior to any similar Preparation.

As first-quality medicines only are used for the retail and prescription business, and no inferior drugs kept in stock, I can offer a full guarantee to Physicians who reside in the country that their orders will be filled to their full satisfaction, in regard to quality and charges.

☞ Parties in the country that may have Physicians' Prescriptions to fill requiring medicines not obtainable there, will please address them to

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Jan. '83-1y. NEW ORLEANS.

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A Concentrated Extract of Malted Wheat, Oats and Barley.

In its preparation the temperature employed does not exceed 150 deg. Fahr., thereby retaining all the nutritive and digestive agents unimpaired. Extracts of Malt are made from Barley alone, by the German process, which directs that the mash be heated to 212 deg. Fahr., thereby coagulating the Albuminoids and almost wholly destroying the starch digestive principle, Diastase.

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MALTINE with Alteratives.
MALTINE with Beef and Iron.
MALTINE with Cod Liver Oil.
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MALTINE with Peptones.
MALTINE with Pepsin and Pancreatine.
MALTINE with Phosphates.
MALTINE with Phosphates Iron and Quinia.
MALTINE with Phosphates Iron, Quinia & Strych.
MALTINE Ferrated.
MALTINE WINE.
MALTINE WINE with Pepsin and Pancreatine.
MALTO-YERBINE.
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E. S. DUNSTER, M. D., Ann Harbor, Mich., Prof. Obs. and Dis. Women and Children University and in Dartmouth College.

THOMAS H. ANDREWS, M. D., Philadelphia, Pa., Demonstrator of Anatomy, Jefferson Medical College.

B. F. HAMMEL, M. D., Philadelphia, Pa., Supt. Hospital of the University of Penn.

F. R. PALMER, M. D., Louisville, Ky., Prof. of Physiology and Personal Diagnosis, University of Louisville.

HUNTER McGUIRE, M. D., Richmond, Va., Prof. of Surgery, Med. Col. of Virginia.

F. A. MARDEN, M. D., Milwaukee, Wis., Supt. and Physician, Milwaukee County Hospital.

L. P. YANDELL, M. D., Louisville, Ky., Prof. of Clinical Medicine and Diseases of Children, University, Louisville.

JOHN. A. LARRABEE, M. D., Louisville, Ky., Prof. of Materia Medica and Therapeutics, and Clinical Lecturer on Diseases of Children in the Hospital College of Medicine.

R. OGDEN DOREMUS, M. D., L.L.D., New York, Prof. of Chemistry and Toxicology, Bellevue Hospital Medical College; Prof. of Chemistry and Physics, College of the City of New York.

WALTER S. HAINES, M. D., Chicago, Ill., Professor of Chemistry and Toxicology, Rush Medical College, Chicago.

E. F. INGALLS, A. M., M. D., Chicago, Ill., Clinical Professor of Diseases of Chest and Throat, Woman's Medical College.

A. A. MEUNIER, M. D., Montreal, Canada, Prof. Victoria University.

H. F. BIGGAR, M. D., Prof. of Surgical and Medical Diseases of Women, Homœopathic Hospital College, Cleveland, Ohio.

DR. DOBELL, London, England, Consulting Physician to Royal Hospital for Diseases of the Chest.

DR. T. F. GRIMSDALE, Liverpool, England, Consulting Physician, Ladies' Charity and Lying-in Hospital.

WM. ROBERTS, M.D., F.R.C.P., F.R.S., Manchester, England, Prof. of Clinical Medicine, Owens College School of Medicine; Physician Manchester Royal Infirmary and Lunatic Hospital.

J. C. THOROWGOOD, M.D., F.R.C.P., London, England, Physician City of London Hospital for Chest Diseases; Physician West London Hospital.

W. C. PLAYFAIR, M.D., F.R.C.P., London, England, Prof. of Obstetric Medicine in King's College and Physician for the Diseases of Women and Children to King's College Hospital.

W. H. WALSHE, M.D., F.R.C.P., Brompton, England, Consulting Physician Consumption Hospital, Brompton, and to the University College Hospital.

A. WYNN WILLIAMS, M. D., M.R.C.S., London, England, Physician Samaritan Free Hospital for Diseases of Women and Children.

A. C. MACRAE, M.D., Calcutta, Ind., Dep. Insp.-Gen. Hosp. Ind. Service, late Pres. Surg., Calcutta.

EDWARD SHOPPEE, M.D., L.R.C.P., M.R.C.S., London, England.

LENNOX BROWN, F.R.C.S., London, Eng., Senior Surgeon, Central Throat and Ear Hospital.

J. CARRICK MURRAY, M. D., Newcastle-on-Tyne, England, Physician to the N. C. H. for Diseases of Chest.

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MALTINE is prescribed by the most eminent members of the Medical Profession in the United States, Great Britain, India, China and the English Colonies, and is largely used at the principal Hospitals in preference to any of the Extracts of Malt.

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The combination of medical agents, as presented by us, produces a remedy of peculiar antiseptic property, alike adapted to Surgery, Obstetrics, Gynecology, Laryngology, and all Zymotic or Febrile diseases, the best clinical testimony having established its safety *Internally*, even in large doses, whilst its capability of dilution to varied strengths for local application, demonstrates its power and scope.

FORMULA. LISTERINE is the *essential Antiseptic* constituent of Thyme, Eucalyptus, Baptisia, Gaultheria, and Mentha Arvensis in combination. Each *fluid drachm* also contains *two* grains of *refined* and *purified* Benzo-boracic Acid.

DOSE. One teaspoonful *three* or *more* times a day (as indicated). As a local application to ulcers, wounds and abscesses, or as a gargle, mouth-wash, inhalent or injection, it can be used *ad libitum*, diluted as desired.

The therapeutic value of LISTERINE has been thoroughly established by the most conservative and scientific element of the profession.

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FORMULA.—Each fluid drachm of "*Lithiated Hydrangea*" represents thirty grs. of *Fresh* Hydrangea, and three grs. of *chemically pure* Benzo-Salicylate of Lithia. Prepared by our improved process of osmosis, it is *invariably* of *definite* and *uniform* therapeutic strength, and hence can be depended upon in clinical practice.

DOSE.—One or two teaspoonfuls four times a day.

HYDRANGEA has been used with great satisfaction in calculous complaints, and abnormal conditions of the Kidneys, and reports have been published by Drs. Athee, Horsley, Monkur, Butler and others, all confirming its value in Kidney and Bladder diseases. As the utility of *LITHIA* in Kidney diseases and of the uric acid diathesis is well-known to the profession, the advantage of Hydrangea and Lithia *combined in a form most easily to be assimilated*, must be apparent to every intelligent physician, and, therefore, he is at once prepared to recognize the value of *LITHIATED HYDRANGEA* in

GRAVEL, GOUT, BRIGHT'S DISEASES, DIABETES, VESICAL IRRITATION,

and all diseases in which a Kidney alterative or an anti-lithic remedy is indicated.

A sample bottle furnished upon application.

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It is most efficacious when taken in the morning fasting, warmed to a temperature not below 60°. or when an equal quantity of hot water is added to it.

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Professor of Physiology and Pathological Anatomy.

JOSEPH JONES, M.D.,
Professor of Chemistry and Clinical Medicine.

[illegible] EL LOGAN, M.D.,
Professor of Anatomy & Clinical Surgery.

ERNEST S. LEWIS, M.D.,
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Professor of Materia Medica and Therapeutics, Clinical Medicine and Hygiene.

ALBERT B. MILES, M.D.,
Demonstrator of Anatomy.

The next annual course of instruction in this Department (now in the fiftieth year of its existence) will commence on Monday, the 23rd day of October, 1883, and terminate on Saturday the 29th day of March, 1884. The first four weeks of the term will be devoted exclusively to Clinical Medicine and Surgery at the Charity Hospital; Practical Chemistry in the Laboratory; and dissections in the spacious and airy Anatomical Rooms of the University.

The means of teaching now at the command of the Faculty are unsurpassed in the United States. Special attention is called to the opportunities presented for

CLINICAL INSTRUCTION.

The Act establishing the University of Louisiana gives the Professors of the Medical Department the use of the great Charity Hospital, as a school of practical instruction.

The Charity Hospital contains nearly 700 beds, and received, during the last year, nearly six thousand patients. Its advantages for practical study are unsurpassed by any similar institution in this country. The Medical, Surgical and Obstetrical Wards, are visited by the respective Professors in charge daily, from eight to ten o'clock A. M., at which time all the Students are expected to attend, and familiarize themselves, *at the bedside of the patients*, with the diagnosis and treatment of all forms of injury and disease.

The regular lectures at the hospital, on Clinical Medicine by Professors Bemiss, Elliott and Joseph Jones, Surgery by Professors Richardson and Logan, Diseases of Women and Children by Professor Lewis, and Special Pathological Anatomy by Professor Chaillé, will be delivered in the amphitheater on Monday, Wednesday, Thursday and Saturday, from 10 to 12 o'clock, A. M.

The Administrators of the Hospital elect, annually, after competitive examination, *twelve resident Students*, who are maintained by the Institution.

TERMS:

For the Tickets of all the Professors	$140 00
For the Ticket of Practical Anatomy	10 00
Matriculation Fee	5 00
Graduation Fee	30 00

Candidates for graduation are required to be twenty-one years of age; to have studied three years; to have attended two courses of lectures, and to pass a satisfactory examination.*

Graduates of other respectable schools are admitted upon payment of the Matriculation and half lecture fees. They cannot, however, obtain the Diploma of the University without passing the regular examinations and paying the usual Graduation Fee.

As the practical advantages here afforded for a thorough acquaintance with all the branches of medicine and surgery are *quite equal* to those possessed by the schools of New York and Philadelphia, the same fees are charged.

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*For further information upon these points see circular.

BELLEVUE HOSPITAL MEDICAL COLLEGE,

CITY OF NEW YORK.

SESSION OF 1883-4.

The standard of Medical Ethics recognized by the College is embodied in the Code of Ethics of the American Medical Association.

The COLLEGIATE YEAR embraces the Regular Winter Session and a Spring Session. The REGULAR SESSION begins on Wednesday, September 19, 1883, and ends about the middle of March, 1884. During this Session, in addition to the regular didactic lectures two or three hours are daily allotted to clinical instruction. Attendance upon two regular courses of lectures is required for graduation. The SPRING SESSION consists chiefly of recitations from Text-Books. This Session begins about the middle of March and continues until the middle of June. During this Session, daily recitations in all the departments are held by a corps of Examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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FEES FOR THE REGULAR SESSION.

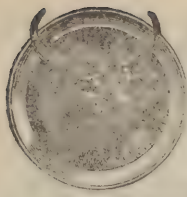
Fees for Tickets to all the Lectures, Clinical and Didactic,	$140 00
Fees for Students who have attended two full courses at other Medical Colleges, and for Graduates of other Medical Colleges	70 00
Matriculation Fee	5 00
Dissection Fee (including material for dissection)	10 00
Graduation Fee	30 00

No Fee for Lectures are required of third-course Students who have attended their second course at the Bellevue Hospital Medical College.

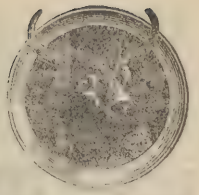
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Matriculation (Tickets valid for the following Winter)	$ 5 00
Recitations, Clinics and Lectures,	40 00
Dissection (Tickets valid for the following Winter),	10 00

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BEEF PEPTONOIDS contains *only* the *nutritious portions* of the beef. It contains *no water* and *no inert matter* of any kind. We combine the dry Extract of Beef with an equal *portion* of Gluten to prevent a tendency to deliquescense, and in order to present the preparation in a powered and portable form. It is well known that Gluten is the most nutritious substance found in the Vegetable Kingdom, and in nutritive elements is closely allied to Beef.

Four ounces of BEEF PEPTONOIDS represents as much nutritive elements and stimulating properties as forty-eight ounces of the best lean Beef.

Four ounces of BEEF PEPTONOIDS contains more nutritive elements than ten pounds of any extract made by Liebig's formula, and from four to six times more Albuminoids and Fibrinoids than any Beef Extract ever offered to the Medical Profession.

Our machinery and process for the production of BEEF PEPTONOIDS are perfectly adapted to the *elimination* of all inert portions of the Beef, and the *retention* of all the nutritive constituents.

BEEF PEPTONOIDS *is much less expensive than any other preparation in the market, as it contains neither water or inert matter.*

The favor our preparation of BEEF PEPTONOIDS received at the hands of DRS. AGNEW, HAMILTON, BLISS, REYBURN, WOODWARD, BARNES, etc., the corps of eminent Physicians, who employed the preparation with so much advantage in the treatment of the late PRESIDENT GARFIELD, proves conclusively its great value, not only as a food to be taken by the mouth, but also, how important an agent it has been found in feeding by the Rectum.

Please refer to the very able article of Dr. D. W BLISS in New York *Medical Record*, July 15th, 1882, in which he so frequently refers to BEEF PEPTONOIDS, having been used to so great an advantage, not only in the case of the late PRESIDENT GARFIELD, but many others as well.

We employ a reliable and experienced person to select the Beeves before they are slaughtered, and to superintend the killing and dressing. Great care is exercised in this respect, and none except the most healthy and suitable beeves are employed in making our BEEF PEPTONOIDS.

Every physician will appreciate the importance of this care, for an Extract made from diseased Beef would not only be deleterious, but would in many cases, produce lasting injury and fatal results.

The use of BEEF PEPTONOIDS is indicated as follows:

Convalescence from all diseases, Fevers, Pneumonia, Weak Digestion, Diarrhœa, Dysentery, Phthisis, Cholera Infantum, Marasmus, Sea Sickness, Excessive use of Alcoholic Stimulant, Per Rectum in all cases where the stomach cannot digest the food, and in debility resulting from any cause. Also, a valuable adjunct in all voyages and camp life.

We will be pleased to have the Profession everywhere to attest our assertions regarding this preparation, and for that purpose we will be happy to mail a sample to any regular practitioner desiring it; also circulars fully explanatory.

For sale, in four ounce handsomely decorated tins, price $1 00. For the convenience of, and economy for, the Medical Profession, we also put up Beef Peptonoids in 16 oz. tins, which will be sent to any address, post paid, on receipt of $2 50.

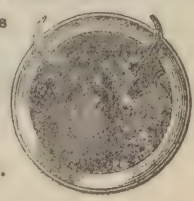


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Very Respectfully,

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SACCHARATED PEPSIN,

which has proven its superiority over other Pepsins by its stability and uniformity, and by its agreeable taste.

In digestive power it corresponds to the standard adopted by the Committee on the 6th Revision of the U. S. Pharmacopœia, which is as follows:

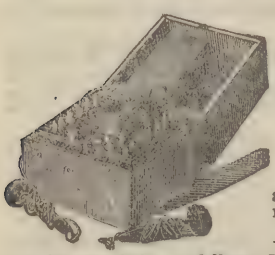
One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

CONCENTRATED DRY PEPSIN,

which possesses eight times the digestive power of the Saccharated; particularly recommended to manufacturers.

LIQUID PEPSIN,

a very active and palatable medicine, containing 4% of Saccharated Pepsin dissolved in acidulated water and glycerine.



DR. McINTOSH'S
Galvanic and Faradic Battery.

This celebrated Battery combines both the Galvanic and Faradic, or induced current which can be used separate or in combination.

Any strength and intensity desired can be obtained for use in Electro-therapeutics. This Battery is constructed on an improved plan, as follows: The zinc and carbon plates are arranged in couples securely clamped to hard rubber plates with thumb screws. These thumb screws are also used for binding posts. All the connections are positive and brought near together, thus lessening the internal resistance. The cells are made in sections of six, composed of one solid piece of hard vulcanized Rubber. By this arrangement a section can be handled, emptied, cleaned and refilled as easily and quickly as one cell. A hard Rubber drip cup is placed by the side of each section of cells, to receive the zincs and carbon plates when removed from the cells. The rubber plates, which hold the zinc and carbons, project over on one side enough to cover the cells, when the zinc and carbons are placed in the drip cups. The under side of this projection is covered with soft rubber, which is clamped over the sections, which makes the cells water tight, this alone recommends the Battery.

We claim superiority over all other batteries for the reason that by the improved plan of construction and close connections we gain more quantity and intensity of current. We combine all that is desirable in either a Galvanic or Faradic Battery, a combination never before attained. We furnish it with or without the Faradic coil. It weighs less than any other of the same power. It can be carried without spilling the fluid, thus being the only perfect portable Galvanic Battery made. We will be pleased to send circulars giving full information, price, &c., free on application.

McINTOSH GALVANIC BELT AND BATTERY CO.

Nos. 192 and 194 Jackson St., CHICAGO, ILL.

TONGALINE

Or Liquor Tongæ Salicylatus.

THE NEW REMEDY FOR NEURALGIA AND RHEUMATISM.

Tonga is a product of the Tonga or Friendly Islands, and has long been used as a domestic remedy by the natives of the Fiji Group. It was introduced to the notice of the medical profession by Drs. Ringer and Murrell, of London, England, who have made some very thorough and most satisfactory experiments as to its therapeutic value. Their high claims for its efficacy as a remedy for neuralgia and rheumatism, have been extensively corroborated by the most eminent medical authorities of both continents; when used in conjunction with salicylic acid, it has had a surprisingly happy effect on the most obdurate cases of neuralgia, especially that of the cranial nerves. In chronic arthritis it is invaluable.

TONGALINE is an efficacious and elegant preparation of Tonga, with powerful salicylates, and commends itself to the medical profession.

EACH FLUID DRACHM OF TONGALINE REPRESENTS:

Tonga	30 grains.	Pilocarpin Salicylate	1-100 grain.
Extractum Cimicifugæ Racemosæ	2 grains.	Colchicin Salicylate	1-500 grain.
Sodium Salicylate	10 grains.		

BOSTON, June 25th, 1883.

I have given TONGALINE a trial, with results which thus far seem very satisfactory.

H. O. MARCY, M. D.

RALEIGH, IND., July 13th, 1883.

I have given TONGALINE a throrough trial in seven cases of neuralgia, as follows: Three supraorbital, one inter-costal, two of the ulnar, and one of facial nerve. Secured relief in from one to four hours, with drachm doses every hour, in all except one case of supra-orbital neuralgia.

W. A. JOHNSON, M. D.

ST. LOUIS, July 20th, 1883.

I have found TONGALINE a useful combination in rheumatic neuralgia.

C. H. HUGHES, M. D.

FAIRMOUNT, NEB., July 13th, 1883.

I have used TONGALINE with satisfactory results, and can recommend it to the profession as a valuable remedial agent in neuralgia and chronic rheumatism.

G. W. JOHNSON, M. D.

DETROIT, July 12th, 1883.

I have tried TONGALINE in two cases of irregularly recurrent facial neuralgia, and with excellent results; it controls the immediate attack in a few hours, two or three at the outside, and often giving almost immediate relief.

F. W OWEN, M. D.

GARNET, KANS., July 12th, 1883.

I have tried TONGALINE when specifically indicated, and find it a superb remedy. Can cheerfully recommend it in the various forms of rheumatism.

J. A. HENNING, M. D.

LOUISVILLE, KY., June 12th, 1883.

I have used TONGALINE during the past few weeks in neuralgic affections, many of them in a severe form, with the most gratifying results, and these results have been quite uniform.

T. S. BELL, M. D.

CUBA, MO., July 19th, 1883.

I have used TONGALINE in two cases of neuralgia with perfect success; one was a case of neuralgia of the heart, the other facial. I gave it in drachm doses, from four to six times a day.

J. H. CLARKE, M. D.

RINGWOOD, N. C., July 16th, 1883.

I have used TONGALINE with marked benefit in a case of neuralgia, and obtained relief when a number of the ordinary remedies had entirely failed.

G. E. MATTHEWS, M. D.

ST. LOUIS, July 11th, 1883.

I have prescribed TONGALINE in several cases of chronic rheumatism, and have not been disappointed in its curative effects.

E. BENKENDORF, M. D.

HARDIN, ILL., July 21st, 1883.

I have used TONGALINE in two cases of facial neuralgia, with happy effect, obtaining relief in a short time.

G. A. WILLIAMS, M. D.

HOPKINS, MO., July 20th, 1883.

I have only used TONGALINE in two cases, one was inter-costal neuralgia, cured with one ounce of it; the other, hemicrania, cured with less than one ounce.

D. A. SARGENT, M. D.

ST. LOUIS, July 17th, 1883.

I have used TONGALINE in a severe case of facial neuralgia, giving drachm dose every hour with marked success.

ROBT. J. HILL, M. D.

A. A. MELLIER,

SOLE PROPRIETOR,

St. Louis.

REGISTERED COSMOLINE TRADE MARK

Unguentum Petrolei

Prepared by E. F. Houghton & Co. Philadelphia, U. S. A.

Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

SAMPLES FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, **Cosmoline (Unguentum Petrolei)** is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the paraffines and olefines of the formulæ C16H34 and C16H32. It contains but a small percentage of the paraffines and olefines, corresponding to the formulæ C7 H16 and C7 H14 respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah. (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

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291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as manufactured by E. F. Houghton & Co., Philadelphia, and believe them well adapted to the purposes for which they are designed. As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York, Visiting Surgeon to Presbyterian Hospital, etc.

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218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & CO.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæcological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly, JOHN H. PACKARD, M. D.

1031 WALNUT STREET, PHILADELPHIA.

Messrs. E. F. HOUGHTON & Co.:

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere. I cannot too highly commend it as an application in various skin diseases.

Yours truly, JOHN V. SHOEMAKER, A. M., M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases

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and all orders will be filled with attention to furnishing such manufactures as are designated. A full stock of

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are also kept on hand for medicinal purposes.

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The preparations of Iron are not always well borne by the stomach. In order to obviate such intolerance, it becomes necessary to combine them with Quinquina, but such a combination can only be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina, an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA A FERRUGINEUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty years.

The VIN DE QUINQUINA FERRUGINEUX DE GRIMAULT ET CIE. must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and a desert spoonful for children.

Depot à Paris—8 rue Vivienne.

Pepsic Peptones, with Beef

OF CHAPOTEAUT, 1st CLASS PHARMACIST OF THE FACULTY OF PARIS.

These perfectly pure Peptones contain only pure beef meat well digested and rendered assimilable by pepsin, always officinal and regular, extracted from the stomach of the sheep, digesting with ease from 700 to 800 times their weight of fibrine, not found in commerce. They possess extraordinary power as food, and exercise on the whole economy extraordinary nutritive action. They must not be confounded with those peptones prepared from the stomachs of sheep or the pancreas of pigs, containing as much of substances produced by the digestion of the mucous membrane of the stomach as of beef. There are three varieties:

1. *Wine of Pepsic Peptones of Chapoteaut.*—Containing in each wineglassful the peptone from 10 grammes of beef (2½ drams). Taste agreeable, constituting an excellent food which sick persons and children take with pleasure. It should be taken on commencing meals. Dose, one to two wineglassfuls.

2. *Conserve of Pepsic Peptone, Chapoteaut.*—This product is liquid, neutral, aromatic and easily kept. Each teaspoonful is equivalent to twice its weight of beef, and may be taken in broth, wine, preserves or syrup, or added to nutritive enemata.

3. *Powder of Pepsic Peptone, Chapoteaut.*—This preparation, possessing only the real flavor of meat, presents the advantage of being easily taken in the first spoonful of soup. It is readily soluble in water, broth or wine. Each teaspoonful represents nearly 4 grammes (1 dram) of pure peptone, equal to 5 drams or more than half an ounce of beef, entirely digested and ready for assimilation. Each vial contains 30 grammes or nearly one ounce of peptone, equivalent to nearly half a pound of beef, sufficient to nourish an adult.

Especially indicated in the following affections: Anæmia, Dyspepsia, Cachexia, Debility, Atony of Stomach and Bowels, Convalescence, food for nurses, children and the aged and of phthisical and diabetic subjects.

Syrup of Horse Radish with Iodine,

PREPARED COLD BY GRIMAULT.

It is a good combination of Iodine with the juices of the antiscorbutic plants, water cresses, horse radish, cochlearia, and water trefoil. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures with iodide of potassium and iron, and is a very useful medicine for children, in the lymphatic cachexia and phthisis. The syrup of horse radish with iodine is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each table spoonful represents 5½ centigrams of iodine. The daily dose for children is 1 table spoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. Depot No 8 Viviene street, Paris. For sale in all drug stores

Soluble Phosphate of Iron.

OR PYROPHOSPHATE OF IRON AND SODA.

DELERAS, DOCTOR AND SCIENTIST, PARIS.

This colorless preparation, with no taste or flavor of iron, contains 20 centigrammes (3½ grains) of the Pyrophosphate of Iron and Soda to each tablespoonful. The intimate union of these essential elements of bone and blood, Iron and Phosphorus in a soluble state, makes the best chalybeate in Chlorosis, Anemia, Scrofula, Lymphangitis, Convalescence, etc. It does not precipitate in the fluids of the stomach, which insures rapid assimilation, never producing constipation, owing to the presence of a small quantity of the Sulphate of Soda, produced during its preparation.

DUSART'S SYRUP

—OF—

LACTO-PHOSPHATE of LIME,

AN ALIMENT AS WELL AS A MEDICAMENT,

The properties of which are scientifically founded on physiological experiments, has now received the sanction of several years' successful trial by the British medical profession as producing durable reconstituent effects IN ALL CASES OF CACHEXIA OR ADYNAMIA, when nutrition has been impaired by acute or chronic complaints.

LACTO-PHOSPHATE of LIME is PHOSPHATE OF LIME—the natural restorer of muscular fibre as well as bones—made assimilable by the action of its natural solvent, lactic acid.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament specially invaluable for the above cases when complicated with anæmia.

DOSES—For Adults, 3 to 6 Tablespoonfuls a day, for Children 3 to 6 Dessertspoonfuls

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The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs. It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas. The urine does not take any odour. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrh.

The Santal of Midy is prepared in small round, transparent capsules, it is chemically pure, and obtained by or from the distillation of Citrine Santal of Bombay.

DOSE—From 10 to 12 Capsules per day, decreasing progressively in proportion with the diminishing discharge.

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CREAM of SUB-NITRATE of BISMUTH,

OF GRIMAULT & CO., PHARMACISTS, PARIS.

Under this form Sub-Nitrate of Bismuth combines intimately with water and is immediately absorbed, owing to the minute division of the drug. To this is due its great efficacy in diarrhœas and dysentery, affections of the stomach, gastritis, gastralgia, colic and ulceration of the intestines. It is the most unobjectionable and the surest remedy for combatting the diarrhœa which is the prodrome of cholera in times of epidemic.

College of Physicians and Surgeons.

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SEVENTY-SEVENTH SESSION, 1883-84.

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WILLARD PARKER, M. D., Emeritus Professor of the Principles and Practice of Surgery.
JOHN C. DALTON, M. D., Professor of Physiology and Hygiene
THOMAS M. MARKOE, M. D., Professor of Surgery.
T. GAILARD THOMAS, M.D., Professor of Clinical Gynæcology.
JOHN T. METCALF, M. D., Emeritus Professor of Clinical Medicine.
HENRY B. SANDS, M. D., Professor of the Practice of Surgery.
JAMES W. McLANE, M. D., Professor of Obstetrics, of Gynæcology, and of the Diseases of Children.
THOMAS T. SABINE, M. D., Professor of Anatomy.
CHARLES F. CHANDLER, Ph D., Professor of Chemistry and Medical Jurisprudence.
EDWARD CURTIS, M. D., Professor of Materia Medica and Therapeutics.
FRANCIS DELAFIELD, M. D, Professor of Pathology ond Practical Medicine.
JOHN G. CURTIS, M. D., Adjunct Professor of Physiology and Hygiene; Secretary of the Faculty.
WM. DETMOLD, M. D., Emeritus Professor of Military and Clinical Surgery.
WILLIAM H. DRAPER, M. D., Professor of Clinical Medicine.
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EDWARD C. SEGUIN, M. D., Clinical Professor of Diseases of the Mind and Nervous System.
GEO. M. LEFFERTS, M. D., Clinial Professor of Laryngoscopy and Diseases of the Throat.
WILLIAM T. BULL, M. D., Demonstrator of Anatomy.
GEORGE HENRY FOX, M. D, Clinical Professor of Diseases of the Skin.
ROBERT F. WEIR, M. D., Clinical Lecturer on Surgery.
WILLIAM S. HALSTEAD, M. D., First Assistant Demonstrator of Anatomy.
FRANCIS R. MARKOE, M. D., Second Assistant Demonstrator of Anatomy.
T. MITCHELL PRUDDEN, M. D., Director of the Physiological and Pathological Laboratory of the Alumni Association.

THE COLLEGIATE YEAR consists of One Session, attendance upon which is required for graduation. The Session of 1883-84 begins October 1st, and continues until May, with short vacations at Thanksgiving and at Christmas.

TUITION is by the following method:

I. DIDACTIC LECTURES—During the Session, from two to six lectures are given daily by the Faculty. Attendance obligatory.

II. CLINICAL TEACHING—Ten Clinics, covering all departments of Medicine and Surgery, are held weekly throughout the entire year in the College Building. In addition, the Faculty give daily clinics at the large City Hospitals and Dispensaries (such as the Bellevue, Charity, New York and Roosevelt Hospitals, the New York Eye and Ear Infirmary, the Woman's Hospital, etc.,) as a regular feature of the College curriculum. Attendance optional.

III. RECITATIONS are held daily. Attendance optional.

IV. PERSONAL INSTRUCTION—Personal Instruction is given in *Practical Anatomy, Operative Surgery, Minor Surgery, Physical Diagnosis, Otology, Laryngoscopy, in Normal and Pathological Histology and the examination of the Urine.* Attendance optional, except upon Practical Anatomy.

EXPENSES—The *necessary* expenses are a yearly matriculation fee ($5), the fees for the lectures of the Session, $20 for the course on each branch, or $140 for the entire curriculum, the Practical Anatomy fee ($10 and a small charge for material), and a Graduation fee of $30. The GRADUATING COURSE requires three years' study, with a preceptor (including the time spent in attendance at the College), attendance upon two full courses of lectures, the second, at least, at this College, and upon one course of Practical Anatomy. Remissions and reductions of lecture fees are made to graduates and students who have already attended two full courses. *All fees are payable in advance.* Board can be had for from $5 to $9 a week, and the Clerk of the College will aid students in obtaining it.

HOSPITAL APPOINTMENTS—Four appointments a year upon the House Staff of Bellevue Hospital are awarded by the Faculty, to those who pass the best examination for the degree of M. D. Public competitive examinations, by the Hospital Authorities are open to Graduates of this College for similar positions at numerous other Hospitals.

For the Annual Catalogue and Announcement, or further information, address JOHN G. CURTIS, M. D., Secretary of the Faculty College of Physicians and Surgeons, corner of Twenty-Third Street and Fourth Avenue, New York.

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Have all the Motions of the Natural Ones.

Perfect Satisfaction in Fitting or No Pay asked.

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"I do not hesitate to say that I have been agreeably surprised at the facility and ease with which Mr. J. L. Gubernator uses an Artificial Leg made by Mr. McDermott of this city, and said to be on the Bly Patent. Having amputated Mr. Gubernator's limb, I feel interested and pleased with the result. Respectfully, A. W. SMYTHE, M. D.

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For 'General Excellence in Manufacture.'

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*See note p 64. Profs. VAN BUREN & KEYES on Urinary Organs.

Hard and Soft Capsules Filled, of all kinds.

No. 00, Largest. No. 5 Z, Smallest.

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EMPTY CAPSULES, (7 Sizes),

Especially adapted and recommended for administering concentrated or nauseous medicines free from taste or smell. Preventing irritation of mouth or throat, and injury to the teeth.

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Suppository Capsules, (3 Sizes), for Rectal Medication. Box 100, 50 cents.

We also have VAGINAL CAPSULES, various sizes, and those adapted for giving medicines to HORSES or CATTLE, 2 sizes (ounce and a half ounce), for liquids or solids. Box **10 Capsules**, either size, by mail **50 Cents.**

N. B.—We make ALL KINDS of Capsules to order.

New Articles, and Capsuling of Private Formulas a specialty,

Samples sent free. Specify PLANTEN'S CAPSULES on all orders. Sold by all Druggists.

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Chemical Apparatus, Surgical Instruments, Electric Apparatus, Medicine Chests, Saddle Bags, Trusses, Supporters, Silk Stockings, Sponges, and all articles used in Medicine and Surgery.

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PERFUMERY, FANCY GOODS, PAINTS, OILS, DYE STUFFS, GLASS, ETC.;

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JNO. WYETH & BRO'S FLUID EXTRACTS, ELIXIRS, WINES,
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R. L. A. BABCOCK'S SILVER UTERINE SUPPORTER,
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SADDLE BAGS, FRESH HUMAN AND BOVINE VACCINE

The extensive Dispensing Department and complete Laboratory connected with my Wholesale Business enables me to give that careful attention to Physicians' Orders necessary to ensure filling them satisfactorily.

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During my many years' experience I have always recognized the importance of establishing in our midst a LABORATORY which would enable Physicians to procure at home, with a guarantee of purity and reliability, the many, elegant and really scientific preparations which have of late years become so popular with practitioners and patients. Supplied with the MOST APPROVED APPARATUS, and in charge of intelligent and experienced pharmaceutists, I may justly claim the products of my laboratory to be excelled by none in the country, and to be far superior to most others of foreign manufacture. I cannot attempt here to enumerate all the extensive list of my preparations, and will only call attention to the leading ones, which have, by their absolute reliability, elicited the praise and approbation of the leading physicians in this city.

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COD LIVER OIL, FERRATED;
COD LIVER OIL, IODO-FERRATED;
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BERGEN COD LIVER OIL, WHITE;
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NUTRITIVE ELIXIR, (Beef, Cognac and Bitter Orange) NUTRITIVE ELIXIR, FERRATED, designed as SUBSTITUTES FOR DUCROS' ELIXIR, at more moderate prices.

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WINE WILD CHERRY, FERRATED.

FLUID EXTRACT ERGOT prepared from the selected grains, and all fluid Extracts of STANDARD STRENGTH.

All new and rare chemicals kept in stock.

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Attention is called to a new remedy for the successful treatment and permanent cure of Diabetes Mellitus, GILLIFORD'S SOLUTION of Arsenic of Bromine. Experience with this remedy seems to show that it will effect a cure in every case of Diabetes, except those in the last stages, and even then the progress of the disease is arrested. M'f'd and for sale by R. H. GILLIFORD, M. D., Alleghany, Pa. In ¼ bottles, $1 per bottle, $10 per doz. Expressed on receipt of price. Sample Free.

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For the treatment of Consumption and Tubercular Diseases.]

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PURE CHEMICALS, ELIXIRS, SYRUPS, DIALYSED IRON, ETC.,

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Prepared from the Stomach of the hog, *Uniform in Strength*, and *free from unpleasant odor and taste.* Ten grains of Saccharated Pepsin, dissolved in one ounce of water, with addition of ten drops of muriatic acid, will completely dissolve 150 grains of coagulated albumen, at a temperature of 100 to 150° F., in 4 to 6 hours.

We also prepare a full line of Perfectly Soluble

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Our new method Kine Crusts will be found much superior to the ordinary form, though points are recommended as the most reliable form of virus attainable.

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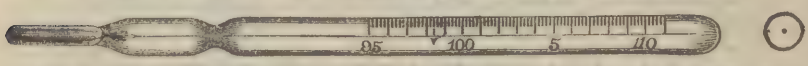
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Nos. 2 and 95. Selected from one of the best English makers, by one of our firm; made expressly for us; warranted accurate, thoroughly seasoned, and very superior. Straight; self-registering; contraction in stem, to prevent loss of index; graduated to one-fifth degree.

No. 95, in addition to the above, has patent lens front, causing the register to appear greatly magnified, so as to be easily read; having plano-convex cross section, it does not roll. Prices as follows:—

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Also, a full assortment of Surgical Instruments.

Illustrated Priced Catalogue on Application.

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ALFRED C. POST, M. D. LL. D., Professor Emeritus of Clinical Surgery, President of the Faculty.
CHARLES INSLEE PARDEE, M. D., Dean of the Faculty, Professor of Otology, Surgeon to the Manhattan Eye and Ear Hospital.
J. W. S. ARNOLD, M. D., Emeritus Professor of Physiology and Histology.
JOHN C. DRAPER, M. D., LL. D., Professor of Chemistry.
ALFRED L. LOOMIS, M. D., Professor of Pathology and Practice of Medicine; Visiting Physician to Bellevue Hospital.
WM. DARLING, M. D., LL. D., F.R.C.S., Professor of General and Descriptive Anatomy.
WILLIAM H. THOMPSON, M. D., Professor of Materia Medica, Therapeutics and Diseases of the Nervous System; Visiting Physician to Bellevue Hospital.
J. WILLISTON WRIGHT, M. D., Professor of Surgery; Visiting Surgeon to Bellevue Hospital.
WM. M. POLK, M. D., Professor of Obstetrics and the Diseases of Women and Children, Gynæcologist to Bellevue Hospital.
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FANEUIL D. WEISSE, M. D., Professor of Practical and Surgical Anatomy; Surgeon to Workhouse Hospital, B. I.
STEPHEN SMITH, M. D., Professor of Clinical Surgery; Surgeon to Bellevue Hospital.
A. E. MACDONALD, LL. B., M. D., Professor of Medical Jurisprudence and Diseases of the Mind, Medical Superintendent of the New York City Asylum for the Insane.
R. A. WITTHAUS, M. D., Professor of Physiological Chemistry.
HERMAN KNAPP, M. D., Professor of Ophthalmology; Surgeon to the Ophthalmic Institute.
S. OAKLEY VANDERPOEL, M. D., LL. D., Professor of Public Hygiene.
AMBROSE L. RANNEY, M. D., Curator of Museum.
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ADJUNCT LECTURERS.

F. R. S. DRAKE, M. D., Clinical Lecturer on Practice of Medicine; Visiting Physician to Bellevue Hospital.
N. M. SHAFFER, M. D., Clinical Lecturer on Orthopædic Surgery; Surgeon in charge of the N. Y. Orthopædic Hospital.
P. A. MORROW, M. D., Clinical Lecturer on Dermatology.
JOSEPH E. WINTERS, M. D., Clinical Lecturer on Diseases of Children.
WILLIAM C. JARVIS, M. D., Clinical Lecturer on Laryngology.
LAWRENCE JOHNSON, M. D., Lecturer on Medical Botany.

THE PRELIMINARY SESSION will begin on Wednesday September 19, 1883, and end October 3, 1883. It will be conducted on the same plan as the Regular Winter Session.

THE REGULAR WINTER SESSION will begin October 3, 1883, and end about the middle of March, 1884. The plan of instruction consists of Didactic and Clinical Lectures, recitations and laboratory work in all subjects in which it is practicable. To put the laboratories on a proper footing a new building has been erected at an expense of thirty-five thousand dollars. It will contain laboratories fitted for instruction in Chemistry, Histology, Pathology, Materia Medica, Operative Surgery and Gynæcology.

Two to five Didactic lectures and two or more Clinical lectures will be given each day by members of the Faculty. In addition to the ordinarny clinics, *special clinical instruction* WITHOUT ADDITIONAL EXPENSE will be given to the candidates for graduation during the whole Regular Session. For this purpose the candidates will be divided into sections of twenty-five members each. At these special clinics students will have excellent opportunities to make and verify diagnoses, and watch the effects of treatment. They will be held in the Wards of the Hospitals and at the Public and College Dispensaries.

Each of the seven professors of the Regular Faculty will conduct a recitation on his subject one evening each week. Students are thus enabled to make up for lost lectures and prepare themselves properly for their final examinations without additional expense.

THE SPRING SESSION will begin about the middle of March and end the last week in May. The daily Clinics and Special Practical Courses will be the same as in the Winter Session, and there will be Lectures on Special Subjects by the Members of the Faculty.

It is supplementary to the Regular Winter Session. Nine months of continued instruction are thus secured to all students of the University who desire a thorough course.

FEES.

For course of Lectures	$140 00
Matriculation	5 00
Demonstrator's Fee, including material for dissection	10 00
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I desire to inform the Medical Profession that I manufacture in my Laboratory, and am now prepared to furnish,

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Which, on account of their effervescing properties; and careful preparation, are more agreeable to take, and more efficacious than syrups, tinctures, wines, etc.

Special attention is directed to my

PYROPHOSPHATED IRON WATER.

It is tasteless and not offensive to the most delicate stomach, and is peculiarly adapted to the treatment of Chlorosis, Anæmia and conditions of general debility where iron is indicated. It is made of standard uniform strength.

Each SIX fluid ounces contain in solution ONE GRAIN OF METALLIC IRON.

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Put up in Pint Bottles. The Trade supplied.

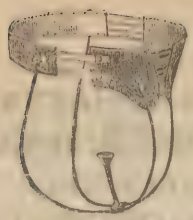
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No instrument has ever been placed before the medical profession which has given such universal satisfaction. The combination is such that the Physician is able to meet every indication of Uterine Displacements. Falling Womb, Anteversion, Retroversion and Flexions are overcome by this instrument, where others fail; this is proven by the fact that since its introduction to the Profession it has come into more general use than all other instruments combined.

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The Abdominal Supporter is a broad morroco leather belt with elastic straps to buckle around the hips, with concave front so shaped as to hold up the abdomen. The Uterine Support is a cup and stem made of highly polished hard rubber, very light and durable shaped to fit the neck of the womb, with openings for the secretions to pass out, as shown by the cuts. Cups are made with extended lips to correct flexions and versions of the womb.

The cup and stem is suspended to the belt by two soft elastic Rubber Tubes, which are fastened to the front of the belt by simple loops, passed down through the stem of the cup and up to the back of the belt. These soft rubber tubes being elastic adapt themselves to all the varying positions of the body and perform the service of ligaments of the womb.

The instrument is very comfortable to the patient, can be removed or replaced by her at will, can be worn at all times, will not interfere with nature's necessities, will not corrode, and is lighter than metal. It will answer for all cases of Anteversion, Retroversions, or any Flexions of the Womb, and is used by the leading Physicians with never failing success even in the most difficult cases.

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Instruments sent by mail, at our risk, on receipt of price, or by Express, C. O. D. with the Express charges for returning the money added.

☞CAUTION—Owing to the great sale and popularity of our instrument various and base imitations are sold by unscrupulous parties. In order to get the genuine, it is best to order direct from us.

Dr. McINTOSH NATURAL UTERINE SUPPORTER CO.,

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SOLUBLE MEDICATED BOUGIES AND SUPPOSITORIES.

The great advantage of *Soluble Medicated Gelatine* preparations in the treatment of diseases of mucous membranes has now become so well recognized that the demand is constantly increasing.

I make, for the use of physicians, the following:—

NASAL BOUGIES, URETHRAL BOUGIES, (*long and short*), AURAL AND RECTAL SUPPOSITORIES.

These can be made to order with any medication desired.

I keep constantly in stock two forms of *Urethral Bougies*, viz.: Regular No, 1 (short), containing Sulphate Zinc, Ext. Hydrastis, Morphia and Biborate Soda. Regular No. 2 (long), containing Sulph. Zinc, Ext. Hydrastis and Ext. Belladonna.

All the above preparations are guaranteed perfectly soluble.

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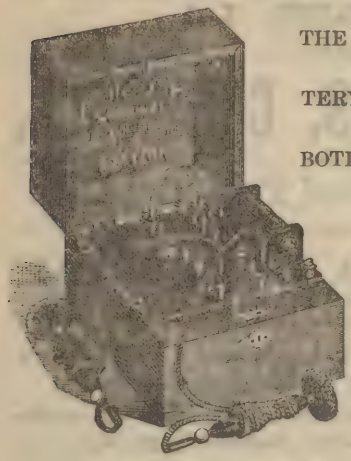
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The cells are composed of one piece of hard rubber and are made in sections of six each with a drip-cup, thus one section can be handled, emptied and cleaned as easily and quickly as one cell.

The fluid cannot spill or run between the cells, and there is no danger of breaking as with glass cells. The drip-cup is to receive the elements when the battery is not in use. The Faradic coil is fastened to the hard rubber plate or cover.

The rubber plate to which the zincs and carbons are attached is securely fastened over the cells when not in use, making it impossible for any of the fluid to be spilled in carrying.

An extra large cell (with a zinc and carbon element) is added to the combined batteries for the purpose of producing the Faradic Current. This cell gives as much Power as is ever needed, and avoids exhausting the current from the Galvanic cells.

Our Batteries weigh less, occupy less space, give a current of greater intensity and quantity than any other Battery manufactured. For simplicity of construction they cannot be surpassed, and any person reading our directions will have no trouble in operating them.

This is the only Battery in which the zinc and carbon plates can be kept clean and always in order by simply rinsing them.

All the metal work is finely nickel plated and highly polished, and every part is put together so that it can be easily replaced by the operator.

We have the most complete line of electrodes yet offered to the profession. We also manufacture various styles of Table and Office Batteries, Bath Apparatus, &c., &c. Our manufacturing facilities are the largest of the kind in America, and we employ none but skilled mechanics, and men of scientific experience.

Our Illustrated Catalogue, a handsome book giving full description of all our goods, and other valuable information, sent free on application.

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Trusses, Supporters, Elastic Stockings, Knee Caps, Rubber Bandages, Air Cushions, Air Pillows, Water Bags, Uirnals, Ice Bags, Silver and Gum Catheters, Metal Sounds, Medicine Chests, Pocket Cases, Saddle Bags, &c.

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Are under the management of R. N. GIRLING. Special attention is paid to the careful selection of Drugs and Chemicals, and the utmost care is used to insure all preparations of the United States, and other pharmacopias being fully up to the standard as to PURITY AND STRENGTH, so that Physicians may have implicit confidence in all preparations emanating from our Laboratory.

We would especially recommend to the notice of Physicians the following preparations, manufactured by R. N. GIRLING, whose long experience in the practice of Pharmacy enables him to employ the best methods to insure thoroughly reliable products, the therapeutical value of which has been recognized by many of the profession:

FLUID EXTRACT OF ERGOT.

ERGOTINE, for Hypodermic uses, etc.

ELIXIR OF PEPSINE, } Each containing 15 Grains of Saccharated Pep-
WINE OF PEPSINE, } sine to the ½ ounce.

ALIMENTARY ELIXIR, } Prepared from Beef, Brandy and Ma-
ALIMENTARY ELIXIR, *Ferrated*, } laga Wine.

FERRATED ELIXIR OF CALISAYA BARK.

EMULSION OF COD LIVER OIL & PHOSPHATE OF LIME, (soluble.)

EMULSION OF COD LIVER OIL AND HYPOPHOSPHITES.

Orders from the Country Promptly Executed.

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Jan. '83-1y.

THE

Jefferson Medical College of Philadelphia.

The Fifty-ninth Session of the Jefferson Medical College will begin on Monday, October 1st, 1883, and will continue until the end of March, 1884. Preliminary Lectures will be held from Monday, 11th of September.

PROFESSORS.

S. D. GROSS, M. D., LL. D., D. C. L. Oxon., Cantab. (Emeritus.)
Institutes and Practice of Surgery.

ELLERSLIE WALLACE, M. D. (Emeritus.)
Obstetrics and Diseases of Women and Children.

J. M. DA COSTA, M. D.,
Practice of Medicine.

WM. H. PANCOAST, M. D.,
General, Descriptive and Surgical Anatomy.

ROBERT E. ROGERS, M. D. LL. D.
Medical Chemistry and Toxicology.

ROBERTS BARTHOLOW, M. D. LL. D.,
Materia Medica and General Therapeutics.

HENRY C. CHAPMAN, M. D.,
Institutes of Medicine and Medical Jurisprudence.

SAMUEL W. GROSS, M. D.,
Principles of Surgery and Clinical Surgery.

JOHN H. BRINTON, M. D.,
Practice of Surgery and Clinical Surgery.

THEOPHILUS PARVIN, M. D., LL. D.
Obstetrics and Gynæcology.

WILLIAM THOMSON, M. D.,
Professor of Opthalmology.

To the usual instruction in medical schools, the faculty of this college have added a thorough system of practical laboratory work. To each course of the regular curriculum there is appended a laboratory course, carried on in large and thoroughly equipped apartments in the college, by specially appointed Demonstrators, under the immediate direction of the Professor. In this way each candidate for the degree of M. D. is immediately and personally taught in obstetrics and gynæcology, physical diagnosis, laryngology, ophthalmology, medical chemistry, pharmacy, materia medica and experimental therapeutics, physiology, histology, and experimental physiology, and minor surgery, bandaging, operations on the cadaver, etc.

In the departments of medicine, "clinical conferences" and practical lessons in physical diagnosis give each student familiarity with all forms of disease. The experience of several sessions has abundantly demonstrated the great value of this practical teaching.

This course of instruction is *free of charge, but obligatory upon* candidates for the degree, except those who have had such instructions and those who are graduates of other colleges of ten years' standing.

A SPRING COURSE of Lectures is given, beginning early in April and ending early in June. There is no additional charge for this course to matriculates of the college, except a registration fee of five dollars; non-matriculates pay forty dollars, *thirty-five of which, however, are credited on the amount of the fees paid for the ensuing winter session.*

A POST GRADUATE COURSE, very complete in all the details of instruction, has been organized for practitioners only.

CLINICAL INSTRUCTION is given *daily* at the HOSPITAL OF THE JEFFERSON MEDICAL COLLEGE throughout the year, by members of the Faculty and by the Hospital Staff.

FEES.

Matriculation Fee, (paid once)	$ 5 00
Ticket for each branch (7,) $20	140 00
Practical Anatomy	10 00
Graduation Fee	30 00
Fees for full course of lectures to those who have attended two full courses at other (recognized) colleges, the matriculation fee and	70 00
To graduates of less than ten years, of such colleges, the matriculation fee and	50 00
To graduates of ten years and upwards of such colleges, the matriculation fee only.	
To dental graduates the first course is $60 and the second is	100 00
To graduates in pharmacy the general ticket is $100 for each year.	

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Moisture	5	to	6	per ct.
Nitrogenous matter (Nitrogen, 2.25 to 2.35)	14.5	"	15	"
Carbo-hydrates, soluble in water	54	"	55	"
Carbo-hydrates, insoluble in water	15	"	16	"
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Ash (inclusive of 0.6 Phosphoric Acid)	2	"	2.5	"

"The proportion of nitrogenous matter or plastic aliments to carbo-hydrates or respiratory constituents in mother's milk is 1:4.5, and in this food the proportion is practically the same, namely 1:5.7. The fat, as a respiratory substance is here reduced to the equivalent of starch.

"My analysis perfectly agrees with the analysis given on their labels, and bears witness to the excellent and rational manner in which this food is compounded."—Dr. E. GEISSLER, Dresden, April 10th, 1880.

"I have used Anglo-Swiss Milk Food in my practice, and commend it with confidence to those who may need it for infants or invalids. The introduction of the Anglo-Swiss Milk Food into America is a great blessing to sick children, weary mothers, and almost discouraged physicians, for medicine will not take the place of food."—E. J. JENNINGS, M. D., Provident Dispensary, 62 W 14th St., N. Y.

"Used in New York Infant Asylum."—J. LEWIS SMITH, M. D.

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"The Diarrhœa had been persistent for four months in spite of the use of other foods. After using two days, the evacuations became normal, and the puny child is now plump and healthy."—GEO. M. OCKFORD, M. D., Vincennes, Ind.

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To the Medical Profession.

CELERINA, THE NERVE-TONIC

FORMULA.—CELERINA is the *isolated*, active *nerve-toning* principle of Celery, Coca, and Viburnum, *combined* in a pleasant *fluid* form.

DOSE.—One or two teaspoonfuls *three* or *more* times a day, as indicated

Each fluid drachm represents three and one-half grains each—Celery, Coca and Viburnum, combined with Aromatics.

CELERINA is the Nerve Tonic *sans pariel* It *refreshes the tired brain* and imparts tone and vigor to the entire nervous system, therefore, it is of the *utmost value* in Nervous Exhaustion, Sexual Debility, Paralysis, Dysmenorrhea, Spermatorrhea Hysteria, Chorea, Weakness of old age, and *all* LANGUID conditions of the system.

After giving CELERINA a *fair trial*, I have found that, as a Nerve Tonic and Vita Reconstructor, it is *what it claims to be.*
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I have given CELERINA a fair test in two cases of debility *resulting from sexual excess*, and am *much pleased* with its action. In one of the cases, the Dyspepsia, which was a prominent complication, *was also cured by its use.*
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I have prescribed CELERINA in cases of *weak, tired* and nervous *men and women, with satisfaction.* It is a *powerful* and *refreshing tonic, lasting in its effects.*
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I have used CELERINA in two cases of mental depression caused by sexual exhaustion, and have found the results VERY SATISFACTORY. I can give the SAME FAVORABLE REPORT in two cases of "Opium Habit."
Litchfield, Ill. CHAS ZOLLER, M. D.

I have used CELERINA in a case of general debility, caused by sexual excess, and the patient has greatly improved under its use.
Chandlerville, Ill. N. S. READ, M. D.

I have FULLY TESTED the merits of CELERINA, having used some 36 bottles in my practice, in cases of Nervous Prostration and General Debility. IT HAS MET EVERY INDICATION OF A NERVE-TONIC. I must say I am HIGHLY PLEASED with it.
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I can bear FAVORABLE TESTIMONY TO THE VALUE OF CELERINA in nervous affections
219 N. 14th St., St. Louis. CHAS. A. WARE, M. D.

I have extensively prescribed CELERINA for spermatorrhea, impotency, and other diseases of the male sexual organs, and it has never failed in doing more than all other remedies. I cheerfully recommend it to the profession.
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I have prescribed CELERINA in my practice and find it to be a *superior nerve-tonic*, and take pleasure in reccommending it to the profession.
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I have been using CELERINA with GRAND SUCCESS in my practice. I find there is NOTHING BETTER in the treatment of Impotency, etc.
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I am having good results from CELERINA in weakness of the generative organs in males, and also find it AN EXCELLENT GENERAL NERVE-TONIC.
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I believe that CELERINA is the BEST NERVE-TONIC IN USE. In one case (in which no other remedy was of benefit) a cure was effected. My patient was grateful—so am I
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I have used CELERINA with MARKED BENEFIT in several cases of NERVOUS PROSTRATION and functional derangements of the heart, and cordialy recommend the preparation to the profession.
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I have used the CELERINA with marked benefit in cases convalescing from diphtheria. I also consider it among our most valuable remedies for Impotency and Nervous Prostration Yours truly,
Charlton, Iowa. WM. H. GIBSSON, M. D.

J. C. RICHARDSON, Chemist, City: Office, 3043 Easton Avenue, ST LOUIS, Mo., March 1st, 1882.
After giving CELERINA a FULL and FAIR trial, am PREPARED to RECOMMEND it most favorably as a NERVE TONIC, to the medical profession. J. G. PARRISH, A. M., M. D

Mr J. C. RICHARDSON, Chemist: ST. LOUIS, March 6, 1882.
I have used your sample of CELERINA that you sent, and found it a fine remedy in all nervous trouble, and will take great pleasure in recommending it to the profession Very Respectfully,
3047 Easton Avenue. W. S. BARNES, M. D.

ST. LOUIS, Missouri, 905 North 9th street, Feb. 27, 1882.
Having given CELERINA a fair trial, I find that as a NERVE-TONIC AND VITAL RECONSTRUCTOR it is what is claimed for it. JAMES O'GALLAGHER, M. D.

J. C. RICHARDSON, Chemist, St. Louis, Mo. ST. LOUIS, February 27th, 1882,
Dear Sir—I have used your CELERINA with good results in weakness of the male generative organs, and I also find it to be an excellent general nerve tonic. Respectfully, J. H. LESLIE, M. D.

As a nerve-tonic CELERINA has few equals and no superiors J. H. McINTYRE, M. D.,
Surgeon in charge St. St. Louis Free Dispensary, Office, 614 Olive Street.

J. C. RICHARDSON, Esq., Manfg. Chemist, City: ST. LOUIS, March 6, 1882.
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Surgeon Department Throat and Lungs, St. Louis Free Dispensary, Office, 614 Olive Street.

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FOOD PRESERVATION.

To the Medical Profession

We desire to call the attention of the medical profession to a practical and successful Food Preservative, which has been perfected by Prof. R. F. Humiston, of Boston, and called REX MAGNUS or The Humiston Food Preservative. This is perhaps a fanciful and high sounding title, but it is not inappropriate. It is indeed a "Mighty King," for it conquers TIME.

REX MAGNUS *does absolutely preserve* meat, game, poultry, fish, milk cream, butter, eggs, vegetable juices and fluid extracts in their natural state, in all seasons and climates, perfectly fresh and sweet and for any reasonable time, while at the same time it ripens and makes meats better.

Solid Scientific Testimony.

Prof. Samuel W. Johnson, the well-known chemist, and for more than 25 years identified with the Scientific Department of Yale College, furnishes the following report concerning Rex Magnus:

"My tests of 35 days in daily mean temperature of 70°, on meats, &c., bought in open market have certainly been severe and I am satisfied that the different brands of Rex Magnus, The Humiston Food Preservative, with which I have experimented, have accomplished all claimed for them. So far as I have yet learned, they are the

ONLY PREPARATIONS THAT ARE EFFECTIVE,

and at the same time practicable, for domestic use. At the banquet on 'treated' meats at the New Haven House I could not distinguish between those which had been sixteen days in my laboratory and those newly taken from the refrigerator of the hotel. The oysters were perfectly palatable and fresh to my taste, and better, as it happened, than those served at the same time, which were recently taken from the shell. The roast beef, steak, chicken, turkey and quail, were all as good as I have ever eaten.

Rex Magnus is safe, tasteless, pure, and Prof. Johnson adds in his report: "I should anticipate no ill-results from its use and consider it no more harmful than common salt."

Invisible Agents of Disease.

It is well known to the medical profession, and to scientists generally, that there exist in the air, myriads of reproductive organisms, representing the lowest forms of vegetable and animal life. They are abundant at all seasons, but more especially during the hottest part of the year. These sporules and germs, as algæ, fungi, torulæ, bacteria, vibrios, etc., though invisible to the naked eye, are now recognized as not only the great cause of fermentative changes, putrefaction and decay, but they are also regarded as the prolific source of many of the inflammatory and purulent diseases. The "septic" or putrefactive changes in animal and vegetable matter, are principally due to these invisible agents, which precede and accompany chemical action.

So Simple, a Child Can Use.

REX MAGNUS is a simple and harmless combination of antiseptics and performs its work by destroying or holding in check these minute organisms. It is perfect in construction and always successful in use when applied according to the directions, which are so simple that a child can follow them. It is compounded on strictly scientific principles from pure and harmless ingredients, directly with a view to the uses for which it is intended.

How to Get It.

The proprietors of this great discovery are desirous that it should be thoroughly investigated by the medical profession throughout the country and will send a sample pound free to every physician who will agree to test it.

It is a great auxiliary of Health. Composed as it is of perfectly pure ingredients, it will not injure the most delicate system, and by counteracting the principles of decay and putrefaction it renders the food wholesome and healthful. It is therefore a great boon to invalids not only for this reason but because it also

Destroys Any Hidden Germs

of diseases and averts the dangers which would arise from their being taken into the weak and enfeebled system.

There have been at different times several worthless mixtures offered to the public, which have pretended to accomplish this great result, but they have signally failed. This is probably because their projectors have tried to preserve everything with one compound. A really scientific man would know better than this.

Different Brands Necessary.

The various kinds of food differ in their nature, character and component parts, and for their sure and safe preservation different antiseptics are required. Prof. Humiston has kept this point in view and for the various classes of food the company makes nine different preparations or brands of REX MAGNUS. They do not claim that what is designed for one thing will preserve another, nor do they claim for any of their preparations any more than they will perform.

Medical Endorsement.

It receives the unqualified endorsement of medical men of all schools wherever it has been brought to their notice. As a sample we append the remarks of three physicians who were present at the banquet above referred to.

"I particularly endeavored to detect the taste of any foreign substance," said Dr. C. A. Linsley, Dean of the Medical Department of Yale College, and Health Officer of New Haven, "but could not do so. I know of no other agent that will do what Rex MAGNUS has done, i. e., save meats and still be harmless and tasteless. I thought I could detect the treated chicken, but I was mistaken."

Dr. A. E. Winchell, a distinguished physician of New Haven, and also a member of the Board of Health, said: "I could detect nothing objectionable, and the meats served at the New Haven House dinner were excellent. Oysters which I ate later, that had been preserved by REX MAGNUS twenty-eight days, were simply luscious. It is a remarkably successful and useful combination."

Dr. B. H. Cheney (homœopathist), a member of the Board of Health, remarked, "I was both surprised and delighted. The beef was excellent, and I could not tell it from any other beef; nor could I taste the preservative in it or any of the meats."

Names and Prices.

The various brands and their retail prices are as follows; "Viandine" for preserving meats, poultry, fish and game, 50 cts. per lb. "Ocean Wave" for oysters, clams, lobsters, fish, &c., 50 cents per lb. "Pearl" for cream, $1.00 per lb. "Snow Flake" for milk, butter and cheese, 50 cents per lb. "Queen" for eggs, $1.00 per lb. "Aqua-Vitæ" for medical purposes and for keeping fluid extracts, $1.00 per lb. "Anti-Ferment," "Anti-Mold" and "Anti-Fly," 50 cents each.

Sample packages sent prepaid by mail or express as we prefer. Name your express office.

THE HUMISTON FOOD PRESERVING CO.,

72 Kilby St., Boston, Mass.

To the Medical Profession.

Fluid Extract of Ergot.

In presenting to the Medical Profession our Fluid Extract of Ergot, we fully realize the responsibility assumed in making the representations we do in regard to our preparation.

No article in the Materia Medica has so often disappointed the practioner, and scarcely any drug is more susceptible of change, deterioration and in time to become entirely inert. We have hesitated to ask the unconditional endorsement of the Profession, until we had fully demonstrated for ourselves the value of the Fluid Extract we make, but now, after more than six years continued evidence of its successful use in the hands of medical men throughout the country, during which time we have manufactured many thousands of pounds, we confidently claim for it a value and efficacy superior to any other preparation of this drug.

The menstruum used is that best adapted for extracting all the active matter, and retaining its full power. Each minim represents one grain of the freshly powdered drug. It is entirely free from Acid, and can be used subcutaneously without irritation in most cases, having in this respect a great advantage over the watery solutions, which decompos every rapidly. Our menstruum is simply Water, Alchohol and Glycerine, no heat whatever is used in its manufacture. Since adopting this formula, a number of valuable papers from foreign authorities have endorsed our view. Our large operations and long experience enable us to select the choicest importations of Ergot as offered, thus insuring material of unexceptionable quality. It will always give us pleasure to send samples to any member of the Profession who may desire to test its value, or confirm our representations, by experiment in private practice, or in institutions with which they may be connected.

Our list of Fluid Extracts embraces all those generally manufactured. We claim for them, careful selection of Crude Material, intelligent and accurate manipulation and concientious exactness in exery detail. Complete lists will be furnished upon application.

JOHN WYETH & BRO,
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Medicines, Chemicals, Medicinal Extracts,

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ELASTIC HOSE, KNEE CAPS,

PURE BERGEN COD LIVER OIL,

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Always FRESHLY PREPARED, and Superior to any similar Preparation.

As first-quality medicines only are used for the retail and prescription business, and no inferior drugs kept in stock, I can offer a full guarantee to Physicians who reside in the country that their orders will be filled to their full satisfaction, in regard to quality and charges.

☞ Parties in the country that may have Physicians' Prescriptions to fill requiring medicines not obtainable there, will please address them to

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MALTINE.

A Concentrated Extract of Malted Wheat, Oats and Barley.

In its preparation the temperature employed does not exceed 150 deg. Fahr., thereby retaining all the nutritive and digestive agents unimpaired. Extracts of Malt are made from Barley alone, by the German process, which directs that the mash be heated to 212 deg. Fahr., thereby coagulating the Albuminoids, and almost wholly destroying the starch digestive principle, Diastase.

LIST OF MALTINE PREPARATIONS.

MALTINE (Plain).
MALTINE with Hops.
MALTINE with Alteratives.
MALTINE with Beef and Iron.
MALTINE with Cod Liver Oil.
MALTINE with Cod Liver Oil and Pancreatine.
MALTINE with Hypophosphites.
MALTINE with Phosphorus Comp
MALTINE with Peptones.
MALTINE with Pepsin and Pancreatine.
MALTINE with Phosphates.
MALTINE with Phosphates Iron and Quinia.
MALTINE with Phosphates Iron, Quinia & Strych.
MALTINE Ferrated.
MALTINE WINE.
MALTINE WINE with Pepsin and Pancreatine.
MALTO-YERBINE.
MALTO-VIBURNIN.

MEDICAL ENDORSEMENTS.

We append, *by permission*, a few names of the many prominent Members of the Medical Profession who are prescribing our Maltine Preparations:

J. K. BAUDUY, M. D., St. Louis, Mo., Physician to St. Vincent's Insane Asylum, and Prof. Nervous Diseases and Clinical Medicine, Missouri Medical College.

WM. PORTER, A. M., M. D., St. Louis, Mo.

E. S. DUNSTER, M. D., Ann Harbor, Mich., Prof. Obs. and Dis. Women and Children University and in Dartmouth College.

THOMAS H. ANDREWS, M. D., Philadelphia, Pa., Demonstrator of Anatomy, Jefferson Medical College.

B. F. HAMMEL, M. D., Philadelphia, Pa., Supt. Hospital of the University of Penn.

F. R. PALMER, M. D., Louisville, Ky., Prof. of Physiology and Personal Diagnosis, University of Louisville.

HUNTER McGUIRE, M. D., Richmond, Va., Prof. of Surgery, Med. Col. of Virginia.

F. A. MARDEN, M. D., Milwaukee, Wis., Supt. and Physician, Milwaukee County Hospital.

L. P. YANDELL, M. D., Louisville, Ky., Prof. of Clinical Medicine and Diseases of Children, University, Louisville.

JOHN. A. LARRABEE, M. D., Louisville, Ky., Prof. of Materia Medica and Therapeutics, and Clincal Lecturer on Diseases of Children in the Hospital College of Medicine.

R. OGDEN DOREMUS, M. D., L.L.D., New York, Prof. of Chemistry and Toxicology, Bellevue Hospital Medical College; Prof. of Chemistry and Physics, College of the City of New York.

WALTER S. HAINES, M. D., Chicago, Ill., Professor of Chemistry and Toxicology, Rush Medical College, Chicago.

E. F. INGALLS, A. M., M. D., Chicago, Ill., Clinical Professor of Diseases of Chest and Throat, Woman's Medical College.

A. A. MEUNIER, M. D., Montreal, Canada, Prof. Victoria University.

H. F. BIGGAR, M. D., Prof. of Surgical and Medical Diseases of Women, Homœopathic Hospital College, Cleveland, Ohio.

DR. DOBELL, London, England, Consulting Physician to Royal Hospital for Diseases of the Chest.

DR. T. F. GRIMSDALE, Liverpool, England, Consulting Physician, Ladies' Charity and Lying-in Hospital.

WM. ROBERTS, M.D., F.R.C.P., F.R.S., Manchester, England, Prof. of Clinical Medicine, Owens' College School of Medicine; Physician Manchester Royal Infirmary and Lunatic Hospital.

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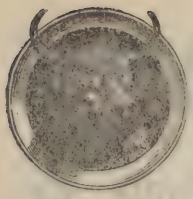
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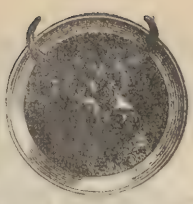
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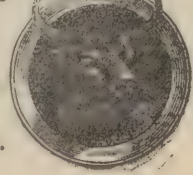


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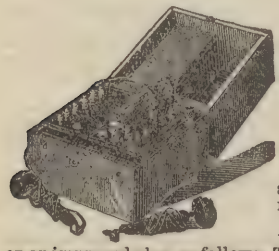
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Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæcological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly, JOHN H. PACKARD, M. D.

Messrs. E. F. HOUGHTON & Co.: 1031 WALNUT STREET, PHILADELPHIA.

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere. I cannot too highly commend it as an application in various skin diseases.

Yours truly, JOHN V. SHOEMAKER, A. M., M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases

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THE COLLEGIATE YEAR consists of One Session, attendance upon which is required for graduation. The Session of 1883-84 begins October 1st, and continues until May, with short vacations at Thanksgiving and at Christmas.

TUITION is by the following method:

I. DIDACTIC LECTURES—During the Session, from two to six lectures are given daily by the Faculty. Attendance obligatory.

II. CLINICAL TEACHING—Ten Clinics, covering all departments of Medicine and Surgery, are held weekly throughout the entire year in the College Building. In addition, the Faculty give daily clinics at the large City Hospitals and Dispensaries (such as the Bellevue, Charity, New York and Roosevelt Hospitals, the New York Eye and Ear Infirmary, the Woman's Hospital, etc.,) as a regular feature of the College curriculum. Attendance optional.

III. RECITATIONS are held daily. Attendance optional.

IV. PERSONAL INSTRUCTION—Personal Instruction is given in *Practical Anatomy, Operative Surgery, Minor Surgery, Physical Diagnosis, Otology, Laryngoscopy, in Normal and Pathological Histology and the examination of the Urine.* Attendance optional, except upon Practical Anatomy.

EXPENSES—The *necessary* expenses are a yearly matriculation fee ($5), the fees for the lectures of the Session, $20 for the course on each branch, or $140 for the entire curriculum, the Practical Anatomy fee ($10 and a small charge for material), and a Graduation fee of $30. The GRADUATING COURSE requires three years' study, with a preceptor (including the time spent in attendance at the College), attendance upon two full courses of lectures, the second, at least, at this College, and upon one course of Practical Anatomy. Remissions and reductions of lecture fees are made to graduates and students who have already attended two full courses. *All fees are payable in advance.* Board can be had for from $5 to $9 a week, and the Clerk of the College will aid students in obtaining it.

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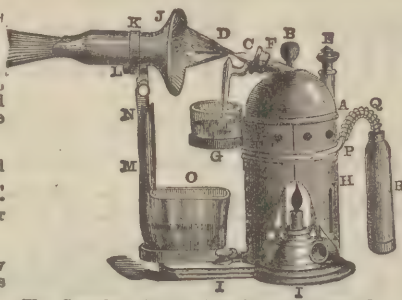
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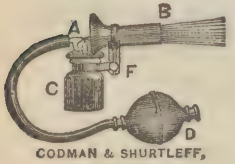
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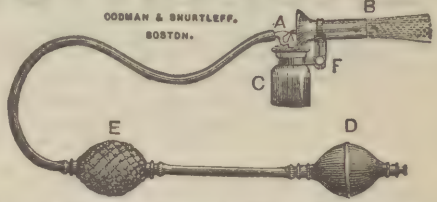
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THE PRELIMINARY SESSION will begin on Wednesday, September 19, 1883, and end October 3, 1883. It will be conducted on the same plan as the Regular Winter Session.

THE REGULAR WINTER SESSION will begin October 3, 1883, and end about the middle of March. 1884. The plan of instruction consists of Didactic and Clinical Lectures, recitations and laboratory work in all subjects in which it is practicable. To put the laboratories on a proper footing a new building has been erected at an expense of thirty-five thousand dollars. It will contain laboratories fitted for instruction in Chemistry, Histology, Pathology, Materia Medica, Operative Surgery and Gynæcology.

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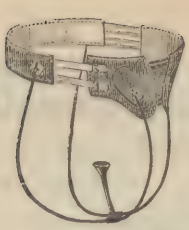
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For Catarrh, dissolve a teaspoonful or two of the extract and a teaspoonful of salt in a pint of warm water and inject into the nostrils with a nasal douche twice a day.

For Sore Throat, dissolve a tablespoonful of the extract in half pint warm water, let it cool, and apply as a gargle repeatedly during the day.

For Gonorrhœa or Gleet, mix one part of the extract with three of water, inject two or three times a day.

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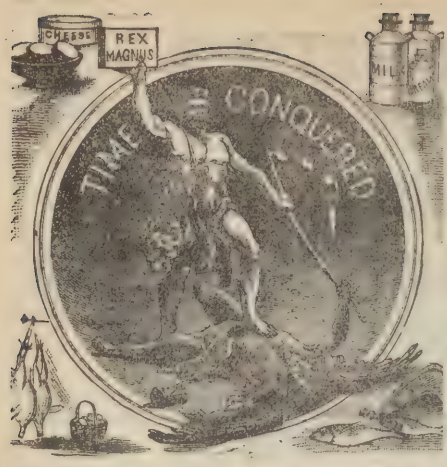
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FOOD PRESERVATION.

To the Medical Profession

We desire to call the attention of the medical profession to a practical and successful Food Preservative, which has been perfected by Prof. R. F. Humiston, of Boston, and called REX MAGNUS or The Humiston Food Preservative. This is perhaps a fanciful and high sounding title, but it is not inappropriate. It is indeed a "Mighty King," for it conquers TIME.

REX MAGNUS *does absolutely preserve* meat, game, poultry, fish, milk cream, butter, eggs, vegetable juices and fluid extracts in their natural state, in all seasons and climates, perfectly fresh and sweet and for any reasonable time, while at the same time it ripens and makes meats better.

Solid Scientific Testimony.

Prof. Samuel W. Johnson, the well-known chemist, and for more than 25 years identified with the Scientific Department of Yale College, furnishes the following report concerning Rex Magnus:

"My tests of 35 days in daily mean temperature of 70°, on meats, &c., bought in open market have certainly been severe and I am satisfied that the different brands of Rex Magnus, The Humiston Food Preservative, with which I have experimented, have accomplished all claimed for them. So far as I have yet learned, they are the

ONLY PREPARATIONS THAT ARE EFFECTIVE,

and at the same time practicable, for domestic use. At the banquet on 'treated' meats at the New Haven House I could not distinguish between those which had been sixteen days in my laboratory and those newly taken from the refrigerator of the hotel. The oysters were perfectly palatable and fresh to my taste, and better, as it happened, than those served at the same time, which were recently taken from the shell. The roast beef, steak, chicken, turkey and quail, were all as good as I have ever eaten.

Rex Magnus is safe, tasteless, pure, and Prof. Johnson adds in his report: "I should anticipate no ill-results from its use and consider it no more harmful than common salt."

Invisible Agents of Disease.

It is well known to the medical profession, and to scientists generally, that there exist in the air, myriads of reproductive organisms, representing the lowest forms of vegetable and animal life. They are abundant at all seasons, but more especially during the hottest part of the year. These sporules and germs, as algæ, fungi, torulæ, bacteria, vibrios, etc., though invisible to the naked eye, are now recognized as not only the great cause of fermentative changes, putrefaction and decay, but they are also regarded as the prolific source of many of the inflammatory and purulent diseases. The "septic" or putrefactive changes in animal and vegetable matter, are principally due to these invisible agents, which precede and accompany chemical action.

So Simple, a Child Can Use.

REX MAGNUS is a simple and harmless combination of antiseptics and performs its work by destroying or holding in check these minute organisms. It is perfect in construction and always successful in use when applied according to the directions, which are so simple that a child can follow them. It is compounded on strictly scientific principles from pure and harmless ingredients, directly with a view to the uses for which it is intended.

How to Get It.

The proprietors of this great discovery are desirous that it should be thoroughly investigated by the medical profession throughout the country and will send a sample pound free to every physician who will agree to test it.

It is a great auxiliary of Health. Composed as it is of perfectly pure ingredients, it will not injure the most delicate system, and by counteracting the principles of decay and putrefaction it renders the food wholesome and healthful. It is therefore a great boon to invalids not only for this reason but because it also

Destroys Any Hidden Germs

of diseases and averts the dangers which would arise from their being taken into the weak and enfeebled system.

There have been at different times several worthless mixtures offered to the public, which have pretended to accomplish this great result, but they have signally failed. This is probably because their projectors have tried to preserve everything with one compound. A really scientific man would know better than this.

Different Brands Necessary.

The various kinds of food differ in their nature, character and component parts, and for their sure and safe preservation different antiseptics are required. Prof. Humiston has kept this point in view and for the various classes of food the company makes nine different preparations or brands of REX MAGNUS. They do not claim that what is designed for one thing will preserve another, nor do they claim for any of their preparations any more than they will perform.

Medical Endorsement.

It receives the unqualified endorsement of medical men of all schools wherever it has been brought to their notice. As a sample we append the remarks of three physicians who were present at the banquet above referred to.

"I particularly endeavored to detect the taste of any foreign substance," said Dr. C. A. Linsley, Dean of the Medical Department of Yale College, and Health Officer of New Haven, "but could not do so. I know of no other agent that will do what Rex MAGNUS has done, i. e., save meats and still be harmless and tasteless. I thought I could detect the treated chicken, but I was mistaken."

Dr. A. E. Winchell, a distinguished physician of New Haven, and also a member of the Board of Health, said: "I could detect nothing objectionable, and the meats served at the New Haven House dinner were excellent. Oysters which I ate later, that had been preserved by REX MAGNUS twenty-eight days, were simply luscious. It is a remarkably successful and useful combination."

Dr. B. H. Cheney (homœopathist), a member of the Board of Health, remarked, "I was both surprised and delighted. The beef was excellent, and I could not tell it from any other beef; nor could I taste the preservative in it or any of the meats."

Names and Prices.

The various brands and their retail prices are as follows: "Viandine" for preserving meats, poultry, fish and game, 50 cts. per lb. "Ocean Wave" for oysters, clams, lobsters, fish, &c., 50 cents per lb. "Pearl" for cream, $1.00 per lb. "Snow Flake" for milk, butter and cheese, 50 cents per lb. "Queen" for eggs, $1.00 per lb. "Aqua-Vitæ" for medical purposes and for keeping fluid extracts, $1.00 per lb. "Anti-Ferment," "Anti-Mold" and "Anti-Fly," 50 cents each.

Sample packages sent prepaid by mail or express as we prefer. Name your express office.

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72 Kilby St., Boston, Mass.

The book recently written by Dr. D. W. Cathell, called "The Physician Himself," does not say a word about patient's diseases or their treatment, but does tell how to honorably get patients to treat, and also tells in a plain business-like manner what a physician must add to book-learning, and college-wisdom in general, to make his success in life more certain, more rapid, and more complete; besides telling what course professional tact and business sagacity dictate in almost every possible dilemma. The young and the old, the dull and the wise, will each find in it a feast of practical wisdom, worth many times the price of the book.

It is a handsomely bound octavo volume, 208 pages, pica type, green cloth cover, with polished red edges, about which the editor of this journal can give further information if desired.

Remit the price, $1 25, either in money or stamps, to the publishers, Cushings & Bailey, 262 W. Baltimore Street, Baltimore, Md., or almost any Bookseller in the United States, and you will receive a copy of the latest edition by return mail.

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The menstruum used is that best adapted for extracting all the active matter, and retaining its full power. Each minim represents one grain of the freshly powdered drug. It is entirely free from Acid, and can be used subcutaneously without irritation in most cases, having in this respect a great advantage over the watery solutions, which decompos every rapidly. Our menstruum is simply Water, Alchohol and Glycerine, no heat whatever is used in its manufacture. Since adopting this formula, a number of valuable papers from foreign authorities have endorsed our view. Our large operations and long experience enable us to select the choicest importations of Ergot as offered, thus insuring material of unexceptionable quality. It will always give us pleasure to send samples to any member of the Profession who may desire to test its value, or confirm our representations, by experiment in private practice, or in instiutions with which they may be connected.

Our list of Fluid Extracts embraces all those generally manufactured. We claim for them, careful selection of Crude Material, intelligent and accurate manipulation and concientious exactness in exery detail. Complete lists will be furnished upon application.

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In its preparation the temperature employed does not exceed 150 deg. Fahr., thereby retaining all the nutritive and digestive agents unimpaired. Extracts of Malt are made from Barley alone, by the German process, which directs that the mash be heated to 212 deg. Fahr., thereby coagulating the Albuminoids, and almost wholly destroying the starch digestive principle, Diastase.

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MALTINE with Phosphates Iron and Quinia.
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MALTINE Ferrated.
MALTINE WINE.
MALTINE WINE with Pepsin and Pancreatine.
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B. F. HAMMEL, M. D., Philadelphia, Pa., Supt. Hospital of the University of Penn.

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JOHN. A. LARRABEE, M. D., Louisville, Ky., Prof. of Materia Medica and Therapeutics, and Clinical Lecturer on Diseases of Children in the Hospital College of Medicine.

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WALTER S. HAINES, M. D., Chicago, Ill., Professor of Chemistry and Toxicology, Rush Medical College, Chicago.

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HYDRANGEA has been used with great satisfaction in calculous complaints, and abnormal conditions of the Kidneys, and reports have been published by Drs. Atlee, Horsley, Monkur, Butler and others, all confirming its value in Kidney and Bladder diseases. As the utility of *LITHIA* in Kidney diseases and of the uric acid diathesis is well-known to the profession, the advantage of Hydrangea and Lithia *combined* in a form *acceptable to the stomach*, must be apparent to every intelligent physician, and therefore, he is at once prepared to recognize the value of *LITHIATED HYDRANGEA* in

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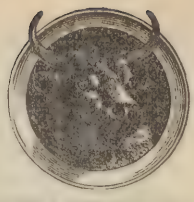
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which has proven its superiority over other Pepsins by its stability and uniformity, and by its agreeable taste.

In digestive power it corresponds to the standard adopted by the Committee on the 6th Revision of the U. S. Pharmacopœia, which is as follows:

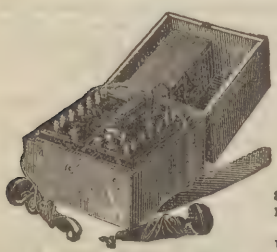
One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

CONCENTRATED DRY PEPSIN,

which possesses eight times the digestive power of the Saccharated; particularly recommended to manufacturers.

LIQUID PEPSIN,

a very active and palatable medicine, containing 4% of Saccharated Pepsin dissolved in acidulated water and glycerine.



DR. McINTOSH'S
Galvanic and Faradic Battery.

This celebrated Battery combines both the Galvanic and Faradic, or induced current which can be used separate or in combination.

Any strength and intensity desired can be obtained for use in Electro-therapeutics. This Battery is constructed on an improved plan, as follows: The zinc and carbon plates are arranged in couples securely clamped to hard rubber plates with thumb screws. These thumb screws are also used for binding posts. All the connections are positive and brought near together, thus lessening the internal resistance. The cells are made in sections of six, composed of one solid piece of hard vulcanized Rubber. By this arrangement a section can be handled, emptied, cleaned and refilled as easily and quickly as one cell. A hard Rubber drip cup is placed by the side of each section of cells, to receive the zincs and carbon plates when removed from the cells. The rubber plates, which hold the zinc and carbons, project over on one side enough to cover the cells, when the zinc and carbons are placed in the drip cups. The under side of this projection is covered with soft rubber, which is clamped over the sections, which makes the cells water tight, this alone recommends the Battery.

We claim superiority over all other batteries for the reason that by the improved plan of construction and close connections we gain more quantity and intensity of current. We combine all that is desirable in either a Galvanic or Faradic Battery, a combination never before attained. We furnish it with or without the Faradic coil. It weighs less than any other of the same power. It can be carried without spilling the fluid, thus being the only perfect portable Galvanic Battery made. We will be pleased to send circulars giving full information, price, &c., free on application.

McINTOSH GALVANIC BELT AND BATTERY CO.

Nos. 192 and 194 Jackson St., CHICAGO, ILL.

TONGALINE

Or Liquor Tongæ Salicylatus.

THE NEW REMEDY FOR NEURALGIA AND RHEUMATISM.

Tonga is a product of the Tonga or Friendly Islands, and has long been used as a domestic remedy by the natives of the Fiji Group. It was introduced to the notice of the medical profession by Drs. Ringer and Murrell, of London, England, who have made some very thorough and most satisfactory experiments as to its therapeutic value. Their high claims for its efficacy as a remedy for neuralgia and rheumatism, have been extensively corroborated by the most eminent medical authorities of both continents; when used in conjunction with salicylic acid, it has had a surprisingly happy effect on the most obdurate cases of neuralgia, especially that of the cranial nerves. In chronic arthritis it is invaluable.

TONGALINE is an efficacious and elegant preparation of Tonga, with powerful salicylates, and commends itself to the medical profession.

EACH FLUID DRACHM OF TONGALINE REPRESENTS:

Tonga	30 grains.	Pilocarpin Salicylate	1-100 grain.
Extractum Cimicifugæ Racemosæ	2 grains.	Colchicin Salicylate	1-500 grain.
Sodium Salicylate	10 grains.		

BOSTON, June 25th, 1883.

I have given TONGALINE a trial, with results which thus far seem very satisfactory.

H. O. MARCY, M. D.

RALEIGH, IND., July 13th, 1883.

I have given TONGALINE a thorough trial in seven cases of neuralgia, as follows: Three supraorbital, one inter-costal, two of the ulnar, and one of facial nerve. Secured relief in from one to four hours, with drachm doses every hour, in all except one case of supra-orbital neuralgia.

W. A. JOHNSON, M. D.

ST. LOUIS, July 20th, 1883.

I have found TONGALINE a useful combination in rheumatic neuralgia.

C. H. HUGHES, M. D.

FAIRMOUNT, NEB., July 14th, 1883.

I have used TONGALINE with satisfactory results, and can recommend it to the profession as a valuable remedial agent in neuralgia and chronic rheumatism.

G. W. JOHNSON, M. D.

DETROIT, July 12th, 1883.

I have tried TONGALINE in two cases of irregularly recurrent facial neuralgia, and with excellent results; it controls the immediate attack in a few hours, two or three at the outside, and often giving almost immediate relief.

F. W OWEN, M. D.

GARNET, KANS., July 12th, 1883.

I have tried TONGALINE when specifically indicated, and find it a superb remedy. Can cheerfully recommend it in the various forms of rheumatism.

J. A. HENNING, M. D.

LOUISVILLE, KY, June 12th, 1883

I have used TONGALINE during the past few weeks in neuralgic affections, many of them in a severe form, with the most gratifying results, and these results have been quite uniform.

T. S. BELL, M. D.

CUBA, MO., July 19th, 1883.

I have used TONGALINE in two cases of neuralgia with perfect success; one was a case of neuralgia of the heart, the other facial. I gave it in drachm doses, from four to six times a day.

J. H. CLARKE, M. D.

RINGWOOD, N. C., July 16th, 1883.

I have used TONGALINE with marked benefit in a case of neuralgia, and obtained relief when a number of the ordinary remedies had entirely failed.

G. E. MATTHEWS, M. D.

ST. LOUIS, July 11th, 1883.

I have prescribed TONGALINE in several cases of chronic rheumatism, and have not been disappointed in its curative effects.

E. BENKENDORF, M. D.

HARDIN, ILL., July 21st, 1883.

I have used TONGALINE in two cases of facial neuralgia, with happy effect, obtaining relief in a short time.

G. A. WILLIAMS, M. D.

HOPKINS, MO., July 20th, 1883.

I have only used TONGALINE in two cases, one was inter-costal neuralgia, cured with one ounce of it; the other, hemicrania, cured with less than one ounce.

D. A. SARGENT, M. D.

ST. LOUIS, July 17th, 1883.

I have used TONGALINE in a severe case of facial neuralgia, giving drachm dose every hour with marked success.

ROBT. J. HILL, M. D.

A. A. MELLIER,
SOLE PROPRIETOR,
St. Louis.

REGISTERED COSMOLINE TRADE MARK.

Unguentum Petrolei

Prepared by E. F. Houghton & Co. Philadelphia, U.S.A.

Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

SAMPLES FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, Cosmoline (Unguentum Petrolei) is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the parafines and olefines of the formulæ $C_{16}H_{34}$ and $C_{16}H_{32}$. It contains but a small percentage of the parafines and olefines, corresponding to the formulæ C_7H_{16} and C_7H_{14} respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah. (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

---

291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as manufactured by E. F. Houghton & Co., Philadelphia, and believe them well adapted to the purposes for which they are designed. As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York,
Visiting Surgeon to Presbyterian Hospital, etc.

---

218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & Co.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly, JOHN H. PACKARD, M. D.

Messrs. E. F. HOUGHTON & Co.: 1031 WALNUT STREET, PHILADELPHIA.

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere. I cannot too highly commend it as an application in various skin diseases.

Yours truly, JOHN V. SHOEMAKER, A M, M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases

Prepared by E. F. HOUGHTON & Co., 211 S. Front St., Philadelphia

G. R. FINLAY & CO.,

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bought exclusively for CASH, and are prepared to fill all orders entrusted to our care with accuracy and dispatch, and at the lowest possible market rates.

We deal in none but

First Class Goods,

and all medicines sold by us are

GUARANTEED TO BE FRESH AND UNADULTERATED

The success of the physician often depends on the quality of the drug prescribed by him, and we believe our patrons will bear us out in the assertion that the quality of the goods we supply cannot be surpassed.

We are Agents for some of the LARGEST MANUFACTURING ESTABLISHMENTS (both of this country and Europe) of

CHEMICALS,

PHARMACISTS' PREPARATIONS,

SURGICAL INSTRUMENTS AND APPLIANCES,

and all orders will be filled with attention to furnishing such manufactures as are designated. A full stock of

Pure Liquors and Wines of all kinds

are also kept on hand for medicinal purposes.

Grimault & Co. Quinquina Ferruginous Wine.

The preparations of Iron are not always well borne by the stomach. In order to obviate such intolerance, it becomes necessary to combine them with Quinquina, but such a combination can only be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina, an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA A FERRUGINEUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty years.

The VIN DE QUINQUINA FERRUGINEUX DE GRIMAULT ET CIE. must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and a desert spoonful for children.

Depot à Paris—8 rue Vivienne.

Pepsic Peptones, with Beef

OF CHAPOTEAUT, 1st CLASS PHARMACIST OF THE FACULTY OF PARIS.

These perfectly pure Peptones contain only pure beef meat well digested and rendered assimilable by pepsin, always official and regular, extracted from the stomach of the sheep, digesting with ease from 700 to 800 times their weight of fibrine, not found in commerce. They possess extraordinary power as food, and exercise on the whole economy extraordinary nutritive action. They must not be confounded with those peptones prepared from the stomachs of sheep or the pancreas of pigs, containing as much of substances produced by the digestion of the mucous membrane of the stomach as of beef. There are three varieties:

1. *Wine of Pepsic Peptones of Chapoteaut.*—Containing in each wineglassful the peptone from 10 grammes of beef (2½ drams). Taste agreeable, constituting an excellent food which sick persons and children take with pleasure. It should be taken on commencing meals. Dose, one to two wineglassfuls.

2. *Conserve of Pepsic Peptone, Chapoteaut.*—This product is liquid, neutral, aromatic and easily kept. Each teaspoonful is equivalent to twice its weight of beef, and may be taken in broth, wine, preserves or syrup, or added to nutritive enemata.

3. *Powder of Pepsic Peptone, Chapoteaut.*—This preparation, possessing only the real flavor of meat, presents the advantage of being easily taken in the first spoonful of soup. It is readily soluble in water, broth or wine. Each teaspoonful represents nearly 4 grammes (1 dram) of pure peptone, equal to 5 drams or more than half an ounce of beef, entirely digested and ready for assimilation. Each vial contains 30 grammes or nearly one ounce of peptone, equivalent to nearly half a pound of beef, sufficient to nourish an adult.

Especially indicated in the following affections: Anæmia, Dyspepsia, Cachexia, Debility, Atony of Stomach and Bowels, Convalescence, food for nurses, children and the aged and of phthisical and diabetic subjects.

Syrup of Horse Radish with Iodine,

PREPARED COLD BY GRIMAULT.

It is a good combination of Iodine with the juices of the antiscorbutic plants, water cresses, horse radish, cochlearia, and water trefoil. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures with iodide of potassium and iron, and is a very useful medicine for children, in the lymphatic cachexia and phthisis. The syrup of horse radish with iodine is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each table spoonful represents 5½ centigrams of iodine. The daily dose for children is 1 table spoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. Depot No 8 Viviene street, Paris. For sale in all drug stores

Soluble Phosphate of Iron.

OR PYROPHOSPHATE OF IRON AND SODA.

DELERAS, DOCTOR AND SCIENTIST, PARIS.

This colorless preparation, with no taste or flavor of iron, contains 20 centigrammes (3⅓ grains) of the Pyrophosphate of Iron and Soda to each tablespoonful. The intimate union of these essential elements of bone and blood, Iron and Phosphorus in a soluble state, makes the best chalybeate in Chlorosis, Anemia, Scrofula, Lymphangitis, Convalescence, etc. It does not precipitate in the fluids of the stomach, which insures rapid assimilation, never producing constipation, owing to the presence of a small quantity of the Sulphate of Soda, produced during its preparation.

DUSART'S SYRUP

—OF—

LACTO-PHOSPHATE of LIME,

AN ALIMENT AS WELL AS A MEDICAMENT,

The properties of which are scientifically founded on physiological experiments, has now received the sanction of several years' successful trial by the British medical profession as producing durable reconstituent effects IN ALL CASES OF CACHEXIA OR ADYNAMIA, when nutrition has been impaired by acute or chronic complaints.

LACTO-PHOSPHATE of LIME is PHOSPHATE OF LIME—the natural restorer of muscular fibre as well as bones—made assimilable by the action of its natural solvent, lactic acid.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament specially invaluable for the above cases when complicated with anæmia.

DOSES—For Adults, 3 to 6 Tablespoonfuls a day, for Children 3 to 6 Dessertspoonfuls

---

MIDY'S SANTAL.

The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs. It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas. The urine does not take any odour. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrh.

The Santal of Midy is prepared in small round, transparent capsules, it is chemically pure, and obtained by or from the distillation of Citrine Santal of Bombay.

DOSE—From 10 to 12 Capsules per day, decreasing progressively in proportion with the diminishing discharge.

Depot, Paris, at Midy's Drug store, No. 113 Faubourg, St. Honore Street.

For sale in all Drug Stores.

Depot at ST. CYR FOURCADE'S PHARMACY, 215 Canal, cor. Rampart, New Orleans, and for sale by all druggists and chemists in the city.

CREAM of SUB-NITRATE of BISMUTH,

OF GRIMAULT & CO., PHARMACISTS, PARIS.

Under this form Sub-Nitrate of Bismuth combines intimately with water and is immediately absorbed, owing to the minute division of the drug. To this is due its great efficacy in diarrhœas and dysentery, affections of the stomach, gastritis, gastralgia, colic and ulceration of the intestines. It is the most unobjectionable and the surest remedy for combatting the diarrhœa which is the prodrome of cholera in times of epidemic.

DIABETES.

The attention of the profession is called to a new remedy for the successful treatment and permanent cure of Diabetes Mellitus, **Cilliford's Solution,** an aqueous solution of a combination of Bromine and Arsenious Acid. This remedy has also proved very useful in a variety of nervous affections. Manufactured and sold by R. H. GILLIFORD, M.D., Alleghany, Pa. In half-pint bottles, **$1** per bottle, expressed on receipt of price. Sample free except expressage.



Syr: Hypophos: Comp: C. P.

(McARTHUR.)

For the treatment of Consumption and Tubercular Diseases.]

"I have frequently prescribed DR. MCARTHUR'S SYRUP OF HYPOPHOSPHITES, and have found it to be a therapeutic agent of great value in the treatment of many diseases."
O. G. CILLEY, M. D., Surgeon-General, Mass.

"I now prescribe it habitually in my private practice, and *always with benefit* when the cases are properly selected."
PROF. JOHN S. LYNCH, M. D., Baltimore, Md.

"I must add, that of all the different preparations of Hypophosphites, the best is DR. MCARTHUR'S SYRUP, because *it has always answered my expectations.*"
F. H. COPELAND, M. D., Port Physician, Boston.

Prepared by J. A. McARTHUR, M.D.

Sold by Chemists and Druggists in all parts of the world.

DR. DOUGLAS BLY'S



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ARTIFICIAL LIMBS

Have all the Motions of the Natural Ones.

Perfect Satisfaction in Fitting or No Pay asked.

A large assortment of Trusses, Abdominal Supporters, Shoulder-Braces, Elastic Stockings, Crutches, &c., at reasonable prices, and the best workmanship. I will attend to the fitting of each instrument, and guarantee satisfaction. A lady will attend to lady customers.

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NEW ORLEANS, Dec. 14th, 1881.

"I do not hesitate to say that I have been agreeably surprised at the facility and ease with which Mr. J. L. Gubernator uses an Artificial Leg made by Mr. McDermott of this city, and said to be on the Bly Patent. Having amputated Mr. Gubernator's limb, I feel interested and pleased with the result Respectfully, A. W. SMYTHE, M. D

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KNOWN AS RELIABLE 50 YEARS,

PREMIUM

For 'General Excellence in Manufacture.'

H. PLANTEN & SON, 224 WILLIAM STREET., NEW YORK.

*See note p 64. Profs. VAN BUREN & KEYES on Urinary Organs.

Hard and Soft Capsules Filled, of all kinds.

No. 00, Largest. No. 5 ℥, Smallest.

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Boxes 100 each



EMPTY CAPSULES, (7 Sizes),

Especially adapted and recommended for administering concentrated or nauseous medicines free from taste or smell. Preventing irritation of mouth or throat, and injury to the teeth.

BOX 100, BY MAIL, 50 Cts.

Suppository Capsules, (3 Sizes), for Rectal Medication. Box 100, 50 cents.

We also have VAGINAL CAPSULES, various sizes, and those adapted for giving medicines to HORSES or CATTLE, 2 sizes (ounce and a half ounce), for liquids or solids.

Box 10 Capsules, either size, by mail **50 Cents.**

N. B.—We make ALL KINDS of Capsules to order.

New Articles, and Capsuling of Private Formulas a specialty,

Samples sent free. Specify PLANTEN'S CAPSULES on all orders. Sold by all Druggists

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Chemical Apparatus, Surgical Instruments, Electric Apparatus, Medicine Chests, Saddle Bags, Trusses, Supporters, Silk Stockings, Sponges, and all articles used in Medicine and Surgery.

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PERFUMERY, FANCY GOODS, PAINTS, OILS, DYE STUFFS, GLASS, ETC.;

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FRENCH, ENGLISH AND GERMAN DRUGS AND CHEMICALS.

Importer of Swedish Leeches,
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Importer of Battley's Liquor Opii Sed.,
Liquor Ergot, Cinchona, Buchu, Taraxacum, etc.,
Importer of French, English and German Proprietary Medicines, Perfumery and Drug Sundries

Only direct Importer in the South of Norwegian or Bergen Cod Liver Oil, White and Brown.

Agent for GEO. TIEMANN & CO.'S SURGICAL INSTRUMENTS,
Which we Sell at Makers' Prices.

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SHARPE & DOHMES' AND HENRY THAYER & CO'S SOLID AND FLUID EXTRACTS

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R. L. A. BABCOCK'S SILVER UTERINE SUPPORTER,
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ARPENTER'S, ELLIOT'S, ALOE & HERNSTEIN'S AND LESLIE'S SADDLE BAGS, FRESH HUMAN AND BOVINE VACCINE

The extensive Dispensing Department and complete Laboratory connected with my Wholesale Business enables me to give that careful attention to Physicians' Orders necessary to ensure filling them satisfactorily.

Having always exercised the greatest care in the selection of the crude materials employed, and making all pharmaceutical preparations of standard strength, in strict accordance with established and recognized formulas, I have earned and am entitled to the confidence of the profession.

I. L. LYONS.

Pharmaceutical and Medicinal Preparations

FROM LABORATORY OF

I. L. LYONS,

(Successor to BALL, LYONS & CO.)

Wholesale Druggist and Pharmacist,

40, 42, 44 CAMP St. and 111, 113, 115, 117 GRAVIER St

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During my many years' experience I have always recognized the importance of establishing in our midst a LABORATORY which would enable Physicians to procure at home, with a guarantee of purity and reliability, the many, elegant and really scientific preparations which have of late years become so popular with practitioners and patients. Supplied with the MOST APPROVED APPARATUS, and in charge of intelligent and experienced pharmaceutists, I may justly claim the products of my laboratory to be excelled by none in the country, and to be far superior to most others of foreign manufacture. I cannot attempt here to enumerate all the extensive list of my preparations, and will only call attention to the leading ones, which have, by their absolute reliability, elicited the praise and approbation of the leading physicians in this city.

I also beg to add that I am prepared to manufacture at short notice any pharmaceutical preparation which physicians may be unable to procure elsewhere.

COD LIVER OIL with PHOSPHATE OF LIME;
COD LIVER OIL with LACTO-PHOSPHATE OF LIME;
COD LIVER OIL with SOLUBLE PHOSPHATE OF LIME;
COD LIVER OIL, FERRATED;
COD LIVER OIL, IODO-FERRATED;
COD LIVER OIL, PHOSPHORATED;
BERGEN COD LIVER OIL, WHITE;
BERGEN COD LIVER OIL, BROWN.

NUTRITIVE ELIXIR, (Beef, Cognac and Bitter Orange) NUTRITIVE ELIXIR, FERRATED, designed as SUBSTITUTES FOR DUCROS' ELIXIR, at more moderate prices.

ELIXIR BISMUTH
ELIXIR CALISAYA and PYROPHOS. IRON,
ELIXIR CALISAYA, IRON and STRYCHNIA.
ELIXIR CALISAYA, IRON, STRYCHNIA and BISMUTH.
ELIXIR CALISAYA, IRON, PEPSINE and BISMUTH.
ELIXIR CIT. LITHIA.
ELIXIR PHOSPHATE IRON, QUININE and STRYCHNIA.
ELIXIR PYROPHOS. IRON, QUININE and STRYCHINA.
ELIXIR PEPSINE.
ELIXIR PEPSINE and BISMUTH.
ELIXIR PEPSINE, BISMUTH and STYRCHNIA.
ELIXIR PEPSINE, BISMUTH. STRYCHNIA and IRON.
ELIXIR VAL. AMMONIA.
ELIXIR VAL. AMMONIA and QUININE.
ELIXIR GUARANA.
ELIXIR TARAX. COMP. for masking Quinine.

LIQUOR PEPSINE.
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SYRUP PHOSPHATES COMP.
SYRUP HYPOPHOPHITES COMP.
SYRUP LACTO-PHOSPHATE IRON.
SYRUP LACTO-PHOSPHATE LIME.
SYRUP IRON, free from taste and acid.
SYRUP PHOSPH. IRON, QUININE and STRYCHNIA.
SYRUP IOD. IRON and MANG.
SYRUP HYD. CHLORAL.
SYRUP LACTO-PHOS. LIME and PEPSINE.
SYRUP LACTO-PHOS. LIME and IRON
WINE, BEEF and IRON.
WINE, BEEF, IRON and CINCHONA.
WINE, PEPSINE.
WINE, IRON BITTER.
WINE CINCHONA, (Quinquina Robiquet.)
WINE CINCHONA, FERRUGINEUX (Quinquina Robiquet.)
WINE WILD CHERRY.
WINE WILD CHERRY, FERRATED.

FLUID EXTRACT ERGOT prepared from the selected grains, and all fluid Extracts of STANDARD STRENGTH.

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NEW ORLEANS, LA.,

Wholesale and Retail Dealer in

DRUGS, MEDICINES, CHEMICALS,

AND

Standard Pharmaceutical Preparations.

IMPORTER OF ENGLISH, GERMAN AND FRENCH

CHEMICALS AND ALKALOIDS.

CONSTANTLY ON HAND, A FULL ASSORTMENT OF

Trusses, Supporters, Elastic Stockings, Knee Caps, Rubber Bandages, Air Cushions, Air Pillows, Water Bags, Uirnals, Ice Bags, Silver and Gum Catheters, Metal Sounds, Medicine Chests, Pocket Cases, Saddle Bags, &c.

THE PRESCRIPTION DEPARTMENT AND LABORATORY

Are under the management of R. N. GIRLING. Special attention is paid to the careful selection of Drugs and Chemicals, and the utmost care is used to insure all preparations of the United States, and other pharmacopias being fully up to the standard as to PURITY AND STRENGTH, so that Physicians may have implicit confidence in all preparations emanating from our Laboratory.

We would especially recommend to the notice of Physicians the following preparations, manufactured by R. N. GIRLING, whose long experience in the practice of Pharmacy enables him to employ the best methods to insure thoroughly reliable products, the therapeutical value of which has been recognized by many of the profession:

FLUID EXTRACT OF ERGOT.

ERGOTINE, for Hypodermic uses, etc.

ELIXIR OF PEPSINE, } Each containing 15 Grains of Saccharated Pep-
WINE OF PEPSINE, } sine to the ½ ounce.

ALIMENTARY ELIXIR, } Prepared from Beef, Brandy and Ma-
ALIMENTARY ELIXIR, *Ferrated*, } laga Wine.

FERRATED ELIXIR OF CALISAYA BARK.

EMULSION OF COD LIVER OIL & PHOSPHATE OF LIME, (soluble.)

EMULSION OF COD LIVER OIL AND HYPOPHOSPHITES.

Orders from the Country Promptly Executed.

☞ Physicians will please specify "GIRLING'S PREPARATIONS" when prescribing.

Jan. '83-1y.

SHARP & DOHME,

MANUFACTURING

CHEMISTS & PHARMACISTS,

BALTIMORE, MD.

Manufacturers of all the officinal and other standard

FLUID AND SOLID EXTRACTS,

including all the NEW REMEDIES;

PURE CHEMICALS, ELIXIRS, SYRUPS, DIALYSED IRON, ETC.,

SACCHARATED PEPSIN,

Prepared from the Stomach of the hog, *Uniform in Strength*, and *free from unpleasant odor and taste.* Ten grains of Saccharated Pepsin, dissolved in one ounce of water, with addition of ten drops of muriatic acid, will completely dissolve 150 grains of coagulated albumen, at a temperature of 100 to 150° F., in 4 to 6 hours.

We also prepare a full line of Perfectly Soluble

SUGAR COATED & GELATINE COATED PILLS,

Comprising all the officinal and other well-known favorite formulæ.

These PILLS are all Prepared with the Utmost Care, under our Immediate Supervision.

The DRUGS entering into their Composition are of the Best Quality.

The Quantities and Proportions are Invariably as Represented on the Labels

The Excipients to make the Masses are Carefully Chosen in each Case, to make the Pill Permanently Soluble in the Fluids of the Stomach and Bowels.

The Sugar Coating and Gelatine Coating will be found very Soluble, and not Excelled by any other in point of Beauty or Finish

Catalogues giving Composition, Doses, etc., of all our Preparations Mailed to Physicians by applying to us direct, or to our wholesale agent,

I. L. LYONS,

Importer and Wholesale Druggist,

42 & 44 CAMP STEET,

NEW ORLEANS, LA.

ag'79.1y.

VACCINE VIRUS,

AND

PRICES REDUCED. VACCINATORS PRICES REDUCED.

We continue, as for several years, to supply **ANIMAL VIRUS** propagated at our own stables from lymph of the "Beaugency Stock," imported by ourselves expressly for this purpose. Results of experience enables us to recommend it as of unsurpassed excellence.

The establishment is under the care of a competent physician of long experience in this specialty, who will spare no pains to produce a perfectly RELIABLE and PURE article, which we are prepared at all times to furnish in FRESH and ACTIVE condition.

Our new method Kine Crusts will be found much superior to the ordinary form, though points are recommended as the most reliable form of virus attainable.

All our Virus is put up in strong, AIR-TIGHT, SEALED PACKAGES, for safe conveyance by mail or express, and will be sent (postpaid if by mail) upon the following terms:—

Fifteen large Ivory Points, well charged on both sides	$2 00
Seven large Ivory Points, well charged on both sides	1 00
Large Ivory Points, less than seven, well charged on both sides, each	25
One Crust, new method, in air-tight Glass Capsule, prepared for immediate use	2 00

Also Humanized Virus, from HEALTHY CHILDREN, procured for us by physicians of undoubted reliability.

One Crust from Unruptured Vesicles (one remove from heifer if preferred)	$2 00

We will give a fresh supply, in case of failure reported within twenty days for Points, thirty days for Human, and ninety days for Kine Crusts.

Orders by mail or telegraph answered by return train.

Liberal discounts upon large supplies for Cities, Towns and Institutions.

Scarifying Vaccinator. Steel, Nickel Plated. (See Cut.) Each 25 cents.

New Illustrated Catalogue of Surgical Instruments postpaid, on request.

In writing us please name this journal.

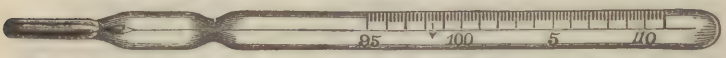
CODMAN & SHURTLEFF,

Makers and Importers of Surgical Instruments,

Nos. 13 & 15 TREMONT STREET, Boston, Mass.

N. B.—See our other advertisements in other numbers of this journal.

Clinical Thermometers.



Nos. 2 and 95. Selected from one of the best English makers, by one of our firm; made expressly for us; warranted accurate, thoroughly seasoned, and very superior. Straight; self-registering; contraction in stem, to prevent loss of index; graduated to one-fifth degree.

No. 95, in addition to the above, has patent lens front, causing the register to appear greatly magnified, so as to be easily read; having plano-convex cross section, it does not roll. Prices as follows:—

No. 2. In German Silver or in Ebony Case, 3, 3½, 4 and 5 inches long, each	$3 00
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Also, a full assortment of Surgical Instruments.

Illustrated Priced Catalogue on Application.

N. B.—ASPIRATORS AND ATOMIZERS.—Faulty and even dangerous imitations of our Aspirators and Atomizers having appeared, we suggest the need of special care in purchasing. Descriptions of the genuine on application.

CODMAN & SHURTLEFF,

Makers and Importers of Surgical Instruments,

Nos. 13 & 15 TREMONT STREET, BOSTON, MASS.

See other advertisement above, and in writing please mention this journal.

To the Medical Profession.

CELERINA, THE NERVE-TONIC

FORMULA.—CELERINA is the *isolated*, active *nerve-toning* principle of Celery, Coca, and Viburnum, *combined* in a pleasant *fluid* form.

DOSE.—One or two teaspoonfuls *three* or *more* times a day, as indicated.

Each fluid drachm represents three and one-half grains each—Celery, Coca and Viburnum, combined with Aromatics.

CELERINA is the Nerve Tonic *sans pariel*. It *refreshes the tired brain* and imparts tone and vigor to the entire nervous system; therefore, it is of the *utmost value* in Nervous Exhaustion, Sexual Debility, Paralysis, Dysmenorrhea, Spermatorrhea, Hysteria, Chorea, Weakness of old age, and *all* LANGUID conditions of the system.

After giving CELERINA a *fair trial*, I have found that, as a Nerve-Tonic and Vita Reconstructor, it is *what it claims to be*.
L. CH. BOISLINIERE, M. D., LL. D.
(Prof. Obstetrics and Diseases of Women, St. Louis Medical Colleges.)

I have given CELERINA a fair test in two cases of debility *resulting from sexual excess*, and am *much pleased* with its action. In one of the cases, the Dyspepsia which was a prominent complication, *was also cured by its use*.
W. R. S. CONNELL, M. D.
(Professor Principes and Practice of Medicine, Joplin (Mo.) College of Physicians and Surgeons.)

I have obtained *the most satisfactory* results from the use of CELERINA in my practice. *I have never prescribed a preparation to which I am more indebted*.
Kingston, Miss. R. DARRINGTON, M. D.

I have prescribed CELERINA in cases of *weak, tired and nervous men and women, with satisfaction*. It is a *powerful* and *refreshing tonic, lasting in its effects*.
GEO. C. PITZER, M. D.
(Prof. Practice of Medicine, American Medical College, St. Louis.)

I have used CELERINA in a great many neuralgia cases with satisfactory results.
N. G. SMITH, M. D.
(President E. Ind. E. M. Ass'n, Lewisville, Ind.)

I have used CELERINA in two cases of mental depression caused by sexual exhaustion, and have found the results VERY SATISFACTORY. I can give the SAME FAVORABLE REPORT in two cases of "Opium Habit."
Litchfield, Ill. CHAS ZOLLER, M. D.

I have used CELERINA in a case of general debility, caused by sexual excess, and the patient has greatly improved under its use.
Chandlerville, Ill. N. S. READ, M. D.

I have FULLY TESTED the merits of CELERINA, having used some 36 bottles in my practice, in cases of Nervous Prostration and General Debility. IT HAS MET EVERY INDICATION OF A NERVE-TONIC. I must say I am HIGHLY PLEASED with it.
Chief, Tenn. C. H. MULLEN, M. D

I can bear FAVORABLE TESTIMONY TO THE VALUE OF CELERINA IN NERVOUS affections.
219 N. 14th St., St. Louis. CHAS. A. WARE, M. D.

I have extensively prescribed CELERINA for spermatorrhœa, impotency, and other diseases of the male sexual organs, and it has never failed in doing more than all other remedies. I cheerfully recommend it to the profession.
North Platte, Neb. N. F. DONALDSON, M. D.

I have prescribed CELERINA in my practice and find it to be a *superior nerve-tonic*, and take pleasure in reccommending it to the profession.
Foosland, Ill. H. L. HARRISS, M. D.

I have been using CELERINA with GRAND SUCCESS in my practice. I find there is NOTHING BETTER in the treatment of Impotency, etc.
Chicago, Ill. E. N. FISHBLATT, M. D.

I am having good results from CELERINA in weakness of the generative organs in males, and also find it an EXCELLENT GENERAL NERVE-TONIC.
St. Paul, Minn. JAY OWENS, M. D.

I believe that CELERINA is the BEST NERVE-TONIC IN USE. In one case (in which no other remedy was of benefit) a cure was effected. My patient was grateful—so am I.
La Crosse, Wis. D. F. POWELL, M. D

I have used CELERINA with MARKED BENEFIT in several cases of NERVOUS PROSTRATION and functional derangements of the heart, and cordialy recommend the preparation to the profession.
Shipman, Ill. G. H. GILSON, M. D.

I have used the CELERINA with marked benefit in cases convalescing from diphtheria. I also consider it among our most valuable remedies for Impotency and Nervous Prostration. Yours truly,
Charlton, Iowa. WM. H. GIBSSON, M. D.

J. C. RICHARDSON, Chemist, City: Office, 3043 Easton Avenue, St. Louis, Mo., March 1st, 1882.

After giving CELERINA a FULL and FAIR trial, am PREPARED TO RECOMMEND it most favorably as a NERVE-TONIC, to the medical profession.
J. G. PARRISH, A. M., M. D.

Mr. J. C. RICHARDSON, Chemist: St. Louis, March 6, 1882.

I have used your sample of CELERINA that you sent, and found it a fine remedy in all nervous trouble, and will take great pleasure in recommending it to the profession. Very Respectfully,
3047 Easton Avenue. W. S. BARNES, M. D.

St. Louis, Missouri, 905 North 9th street, Feb. 27, 1882.

Having given CELERINA a fair trial, I find that AS A NERVE-TONIC AND VITAL RECONSTRUCTOR it is what is claimed for it. JAMES O'GALLAGHER, M. D.

J. C. RICHARDSON, Chemist, St. Louis, Mo. St. Louis, February 27th, 1882,

Dear Sir—I have used your CELERINA with good results in WEAKNESS of the male generative organs, and I also find it to be an excellent general nerve tonic. Respectfully, J. H. LESLIE, M. D.

As a nerve-tonic CELERINA has few equals and no superiors. J. H. McINTYRE, M. D.,
Surgeon in charge St. St. Louis Free Dispensary, Office, 614 Olive Street.

J. C. RICHARDSON, Esq., Manfg. Chemist, City: St. Louis, March 6, 1882.

My Dear Sir:—Having thoroughly tested the merits of CELERINA both in chemical and private practice, take pleasure in stating that it is superior to any remedy of its class. Respectfully, P. H. CRONIN, M. D.
Surgeon Department Throat and Lungs, St. Louis Free Dispensary, Office, 614 Olive Street.

Prepared only by J. C. RICHARDSON, Chemist, St. Louis, Missouri.

Celerina is prepared for the use of Physicians only, and can be had from all reputable Druggists, wholesale and retail, in the United States, or from RICHARDSON & CO., Wholesale Druggists, 710 North Main st., ST. LOUIS, MO.

or from L. L. LYONS, NEW ORLEANS, LA.

ALEX. K. FINLAY,

DRUGGIST

Cor. CAMP & JULIA STS.

NEW ORLEANS.

J. N. W. OTTO,

Druggist & Apothecary,

COR. RAMPART & GRAVIER,

NEW ORLEANS, LA.

☞ *Also, dealer in DRUGS, CHEMICALS, PERFUMERY, ETC.*

Prescriptions carefully dispensed at all hours, both day and night.

Washington Avenue Drug Store,

COR. WASHINGTON & MAGAZINE STS.

Constantly on hand a well selected stock of

Medicines, Perfumery and Fine Toilet Articles.

Physicians' Prescriptions carefully prepared.

M. MERCIER,

DRUGGIST,

182 Baronne St., Corner Girod,

NEW ORLEANS,

Dealer in Patent Medicines, Perfumery,

Brushes, French & English Chemicals.

Physicians' Prescriptions Carefully Compounded at all hours, Day and Night.

WILLIAM GRANER,

DRUGGIST & APOTHECARY,

COR. DRYADES AND ST. ANDREW STS.,

NEW ORLEANS.

JOS. LLADO, APOTHECARY,

203 CHARTRES STREET,

Between Dumaine and St. Ann, opposite Madison Sts.

NEW ORLEANS, LA.

DRUGS, MEDICINES, CHEMICALS.

FINE SOAPS, PERFUMERY,

And all Articles usually kept on hand by Druggists.

☞ Physicians' Prescriptions carefully Compounded.

A. R. MATTINGLY,

Druggist and Apothecary,

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Marengo & Tchoupitoulas sts.

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Felicity and Magnolia Sts.,

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P. L. CUSACHS,

158 CANAL ST., cor. Baronne,

☞ ABSOLUTELY PURE DRUGS AND MEDICINES.

Laboratory and Prescription Department under the management of

R. N. GIRLING.

FERDINAND LASCAR,

PHARMACIST,

(Formerly Oscar Czarnowski's)

DRUG STORE,

205 Poydras Street.

All Prescriptions Carefully Prepared under my Personal Supervision, Day and Night.

G. J. MATTINGLY,

Apothecary and Druggist,

MAGAZINE STREET,

Corner of Napoleon Avenue,

NEW ORLEANS.

H. DUHN,

Druggist & Apothecary,

Cor. Bienville & Marais Sts,

NEW ORLEANS, LA.

PRESCRIPTIONS CAREFULLY COMPOUNDED, day or night.

L. N. DEGUERCY,

Apothecary & Druggist,

395 CLAIBORNE ST.,

NEW ORLEANS.

Physicians' Prescriptions carefully compounded.

JOSEPH SCHAFER,

Chemist and Druggist,

104 SPAIN STREET,

Cor. Burgundy, NEW ORLEANS.

Physicians' Prescriptions carefully compounded.

Dr. Hava's Pharmacy,

99 & 101 CHARTRES ST.

DR. HAVA'S ANALEPTIC AND TONIC WINE, containing six to ten per cent. of Soluble Tribasic Phosphate of Lime, made by the same process as the celebrated Dr. Hava's Cod Liver Oil, used in all cases by physicians where phosphate and tonics are required. Beneficial in Pulmonary Affections. Sold by all Druggists

A. GRAMBOIS,

Druggist and Apothecary,

Cor. Esplanade and Burgundy,

NEW ORLEANS.

☞Chocolate Vermifuge for Children.

C. L. KEPPLER,

Druggist and Apothecary,

461 DRYADES STREET,

Cor. Euterpe st. NEW ORLEANS.

Dealer in Drugs, Chemicals, Perfumery and Toilet Articles.

Physicians' Prescriptions carefully compounded.

WM. B. GILL,

Druggist & Apothecary,

Cor. MAGAZINE & JOSEPHINE.

NEW ORLEANS, LA.

CARBONATED MEDICINAL WATERS

I desire to inform the Medical Profession that I manufacture in my Laboratory, and am now prepared to furnish,

CARBONATED MINERAL WATERS

Which, on account of their effervescing properties; and careful preparation, are more agreeable to take, and more efficacious than syrups, tinctures, wines, etc.

Special attention is directed to my

PYROPHOSPHATED IRON WATER.

It is tasteless and not offensive to the most delicate stomach, and is peculiarly adapted to the treatment of Chlorosis, Anæmia and conditions of general debility where iron is indicated. It is made of standard uniform strength.

Each SIX fluid ounces contain in solution ONE GRAIN OF METALLIC IRON.

I also manufacture a very reliable **LITHIA PREPARATION.** As a carbonated water, it is one of the most efficacious forms of administering this medicine.

SIX FLUID OUNCES contain THREE GRAINS OF CARBONATE OF LITHIA.

All other Mineral Waters can be made on demand, having supplied myself with complete apparatus for that purpose.

Put up in Pint Bottles. The Trade supplied.

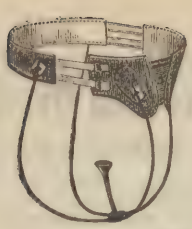
Parties in the Country will please direct their orders either to me, or to any Wholesale Druggist of New Orleans.

C. L. KEPPLER,

PHARMACEUTICAL CHEMIST,

461 *Dryades Street, Corner Euterpe,*

NEW ORLEANS, LA.





DR. McINTOSH'S

Natural Uterine Supporter.

No instrument has ever been placed before the medical profession which has given such universal satisfaction. The combination is such that the Physician is able to meet every indication of Uterine Displacements. Falling Womb, Anteversion, Retroversion and Flexions are overcome by this instrument, where others fail; this is proven by the fact that since its introduction to the Profession it has come into more general use than all other instruments combined.

Among the many reasons which recommend this Supporter to the Physician is its self-adjusting qualities. The Physician after applying it need have no fear that he will be called in haste to remove or readjust it as is often the case with rings and various pessaries held in position by presure against the vaginal wall, as the patient can remove it at will and replace it without assistance.

The Abdominal Supporter is a broad morroco leather belt with elastic straps to buckle around the hips, with concave front so shaped as to hold up the abdomen. The Uterine Support is a cup and stem made of highly polished hard rubber, very light and durable, shaped to fit the neck of the womb, with openings for the secretions to pass out, as shown by the cuts. Cups are made with extended lips to correct flexions and versions of the womb.

The cup and stem is suspended to the belt by two soft elastic Rubber Tubes, which are fastened to the front of the belt by simple loops, passed down through the stem of the cup and up to the back of the belt. These soft rubber tubes being elastic adapt themselves to all the varying positions of the body and perform the service of ligaments of the womb.

The instrument is very comfortable to the patient, can be removed or replaced by her at will, can be worn at all times, will not interfere with nature's necessities, will not corrode, and is lighter than metal. It will answer for all cases of Anteversion, Retroversions, or any Flexions of the Womb, and is used by the leading Physicians with never failing success even in the most difficult cases.

Our Reduced Prices are to Physicians, $6.00; to Patients, $10.00.

Instruments sent by mail, at our risk, on receipt of price, or by Express, C. O. D. with the Express charges for returning the money added.

☞CAUTION—Owing to the great sale and popularity of our instrument various and base imitations are sold by unscrupulous parties. In order to get the genuine, it is best to order direct from us.

Dr. McINTOSH NATURAL UTERINE SUPPORTER CO.,

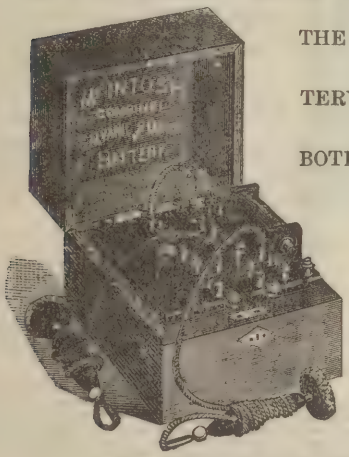
192 Jackson Street, Chicago, Ill.

Our valuable pamphlet "Some Practical Facts about Displacements of the Womb" will be sent you free on application.

BUY THE BEST!

Highly Recommended by the Medical Faculty of both America and Europe, and adopted by the United States Government. More of them Sold than any other Battery in the World.

McINTOSH COMBINED
Galvanic and Faradic Battery.



THE FIRST AND ONLY PORTABLE BATTERY EVER INVENTED WHICH GIVES BOTH THE GALVANIC AND FARADIC CURRENT;

THUS COMBINING TWO DISTINCT BATTERIES IN ONE CASE.

NO PHYSICIAN CAN AFFORD TO BE WITHOUT ONE.

This Celebrated Battery is constructed on an improved plan. The zincs and carbons are fastened to hard rubber plates in sections of six each, this manner of connecting brings the plates nearer together than in any other battery, thus giving less internal resistance. The rubber plate or cover will not warp or break, and is not affected by the fluid.

The cells are composed of one piece of hard rubber and are made in sections of six each with a drip-cup, thus one section can be handled, emptied and cleaned as easily and quickly as one cell.

The fluid cannot spill or run between the cells, and there is no danger of breaking as with glass cells. The drip-cup is to receive the elements when the battery is not in use. The Faradic coil is fastened to the hard rubber plate or cover.

The rubber plate to which the zincs and carbons are attached is securely fastened over the cells when not in use, making it impossible for any of the fluid to be spilled in carrying.

An extra large cell (with a zinc and carbon element) is added to the combined batteries for the purpose of producing the Faradic Current. This cell gives as much Power as is ever needed, and avoids exhausting the current from the Galvanic cells.

Our Batteries weigh less, occupy less space, give a current of greater intensity and quantity than any other Battery manufactured. For simplicity of construction they cannot be surpassed, and any person reading our directions will have no trouble in operating them.

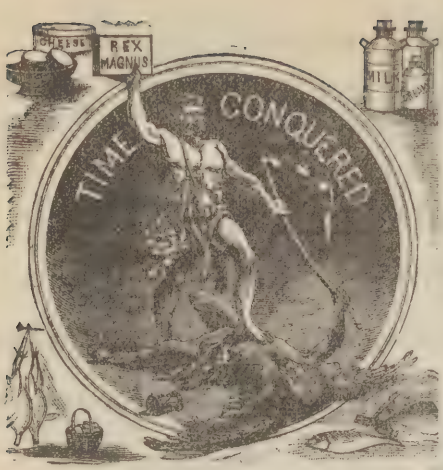
This is the only Battery in which the zinc and carbon plates can be kept clean and always in order by simply rinsing them.

All the metal work is finely nickel plated and highly polished, and every part is put together so that it can be easily replaced by the operator.

We have the most complete line of electrodes yet offered to the profession. We also manufacture various styles of Table and Office Batteries, Bath Apparatus, &c., &c. Our manufacturing facilities are the largest of the kind in America, and we employ none but skilled mechanics, and men of scientific experience.

Our Illustrated Catalogue, a handsome book giving full description of all our goods, and other valuable information, sent free on application.

McIntosh Galvanic and Faradic Battery Co.
192 *and* 194 *Jackson Street, Chicago, Ill.*



FOOD PRESERVATION.

To the Medical Profession

We desire to call the attention of the medical profession to a practical and successful Food Preservative, which has been perfected by Prof. R. F. Humiston, of Boston, and called REX MAGNUS or The Humiston Food Preservative. This is perhaps a fanciful and high sounding title, but it is not inappropriate. It is indeed a "Mighty King," for it conquers TIME.

REX MAGNUS *does absolutely preserve* meat, game, poultry, fish, milk cream, butter, eggs, vegetable juices and fluid extracts in their natural state, in all seasons and climates, perfectly fresh and sweet and for any reasonable time, while at the same time it ripens and makes meats better.

Solid Scientific Testimony.

Prof. Samuel W. Johnson, the well known chemist, and for more than 25 years identified with the Scientific Department of Yale College, furnishes the following report concerning Rex Magnus:

"My tests of 35 days in daily mean temperature of 70°, on meats, &c., bought in open market have certainly been severe and I am satisfied that the different brands of Rex Magnus, The Humiston Food Preservative, with which I have experimented, have accomplished all claimed for them. So far as I have yet learned, they are the

ONLY PREPARATIONS THAT ARE EFFECTIVE,

and at the same time practicable, for domestic use. At the banquet on 'treated' meats at the New Haven House I could not distinguish between those which had been sixteen days in my laboratory and those newly taken from the refrigerator of the hotel. The oysters were perfectly palatable and fresh to my taste, and better, as it happened, than those served at the same time, which were recently taken from the shell. The roast beef, steak, chicken, turkey and quail, were all as good as I have ever eaten.

Rex Magnus is safe, tasteless, pure, and Prof. Johnson adds in his report: "I should anticipate no ill-results from its use and consider it no more harmful than common salt."

Invisible Agents of Disease.

It is well known to the medical profession, and to scientists generally, that there exist in the air, myriads of reproductive organisms, representing the lowest forms of vegetable and animal life. They are abundant at all seasons, but more especially during the hottest part of the year. These sporules and germs, as algæ, fungi, torulæ, bacteria, vibrios, etc., though invisible to the naked eye, are now recognized as not only the great cause of fermentative changes, putrefaction and decay, but they are also regarded as the prolific source of many of the inflammatory and purulent diseases. The "septic" or putrefactive changes in animal and vegetable matter, are principally due to these invisible agents, which precede and accompany chemical action.

So Simple, a Child Can Use.

REX MAGNUS is a simple and harmless combination of antiseptics and performs its work by destroying or holding in check these minute organisms. It is perfect in construction and always successful in use when applied according to the directions, which are so simple that a child can follow them. It is compounded on strictly scientific principles from pure and harmless ingredients, directly with a view to the uses for which it is intended.

How to Get It.

The proprietors of this great discovery are desirous that it should be thoroughly investigated by the medical profession throughout the country and will send a sample pound free to every physician who will agree to test it.

It is a great auxiliary of Health. Composed as it is of perfectly pure ingredients, it will not injure the most delicate system, and by counteracting the principles of decay and putrefaction it renders the food wholesome and healthful. It is therefore a great boon to invalids not only for this reason but because it also

Destroys Any Hidden Germs

of diseases and averts the dangers which would arise from their being taken into the weak and enfeebled system.

There have been at different times several worthless mixtures offered to the public, which have pretended to accomplish this great result, but they have signally failed. This is probably because their projectors have tried to preserve everything with one compound. A really scientific man would know better than this.

Different Brands Necessary.

The various kinds of food differ in their nature, character and component parts, and for their sure and safe preservation different antiseptics are required. Prof. Humiston has kept this point in view and for the various classes of food the company makes nine different preparations or brands of REX MAGNUS. They do not claim that what is designed for one thing will preserve another, nor do they claim for any of their preparations any more than they will perform.

Medical Endorsement.

It receives the unqualified endorsement of medical men of all schools wherever it has been brought to their notice. As a sample we append the remarks of three physicians who were present at the banquet above referred to.

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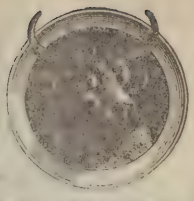
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We have pleasure in presenting, for the consideration of the Medical profession "BEEF PEPTONOIDS." We consider this product the most valuable that ever emanated from our Laboratory, and we feel confident it will be welcomed by the Profession in all parts of the world.

BEEF PEPTONOIDS contains *only* the *nutritious portions* of the beef. It contains *no water* and *no inert matter* of any kind. We combine the dry Extract of Beef with an equal *portion* of Gluten to prevent a tendency to deliquescense, and in order to present the preparation in a powered and portable form. It is well known that Gluten is the most nutritious substance found in the Vegetable Kingdom, and in nutritive elements is closely allied to Beef.

Four ounces of BEEF PEPTONOIDS represents as much nutritive elements and stimulating properties as forty-eight ounces of the best lean Beef.

Four ounces of BEEF PEPTONOIDS contains more nutritive elements than ten pounds of any extract made by Liebig's formula, and from four to six times more Albuminoids and Fibrinoids than any Beef Extract ever offered to the Medical Profession.

Our machinery and process for the production of BEEF PEPTONOIDS are perfectly adapted to the *elimination* of all inert portions of the Beef, and the *retention* of all the nutritive constituents.

BEEF PEPTONOIDS *is much less expensive than any other preparation in the market, as it contains neither water or inert matter.*

The favor our preparation of BEEF PEPTONOIDS received at the hands of DRS. AGNEW, HAMILTON, BLISS, REYBURN, WOODWARD, BARNES, etc., the corps of eminent Physicians, who employed the preparatian with so much advantage in the treatment of the late PRESIDENT GARFIELD, proves conclusively its great value, not only as a food to be taken by the mouth, but also, how important an agent it has been found in feeding by the Rectum.

Please refer to the very able article of Dr. D. W BLISS in New York *Medical Record*, July 15th, 1882, in which he so frequently refers to BEEF PEPTONOIDS, having been used to so great an advantage, not only in the case of the late PRESIDENT GARFIELD, but many others as well.

We employ a reliable and experienced person to select the Beeves before they are slaughtered, and to superintend the killing and dressing. Great care is exercised in this respect, and none except the most healthy and suitable beeves are employed in making our BEEF PEPTONOIDS.

Every physician will appreciate the importance of this care, for an Extract made from diseased Beef would not only be deleterious, but would in many cases, produce lasting injury and fatal results.

The use of BEEF PEPTONOIDS is indicated as follows:

Convalescence from all diseases, Fevers, Pneumonia, Weak Digestion, Diarrhœa, Dysentery, Phthisis, Cholera Infantum, Marasmus, Sea Sickness, Excessive use of Alcoholic Stimulant, Per Rectum in all cases where the stomach cannot digest the food, and in debility resulting from any cause. Also, a valuable adjunct in all voyages and camp life.

We will be pleased to have the Profession everywhere to attest our assertions regarding this preparation, and for that purpose we will be happy to mail a sample to any regular practitioner desiring it; also circulars fully explanatory.

For sale, in four ounce handsomely decorated tins, price $1 00. For the convenience of, and economy for, the Medical Profession, we also put up Beef Peptonoids in 16 oz. tins, which will be sent to any address, post paid, on receipt of $2 50.

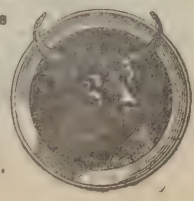


Thanking the Profession for generous support in the past, we beg to remain,

Very Respectfully,

REED & CARNRICK,

182 FULTON ST. NEW YORK.



PEPSIN.

E. SCHEFFER, . . Louisville. Ky.

Manufactures by his Improved Method

SACCHARATED PEPSIN,

which has proven its superiority over other Pepsins by its stability and uniformity, and by its agreeable taste.

In digestive power it corresponds to the standard adopted by the Committee on the 6th Revision of the U. S. Pharmacopœia, which is as follows:

One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

CONCENTRATED DRY PEPSIN,

which possesses eight times the digestive power of the Saccharated; particularly recommended to manufacturers.

LIQUID PEPSIN,

a very active and palatable medicine, containing 4% of Saccharated Pepsin dissolved in acidulated water and glycerine.



DR. McINTOSH'S
Galvanic and Faradic Battery.

This celebrated Battery combines both the Galvanic and Faradic, or induced current which can be used separate or in combination.

Any strength and intensity desired can be obtained for use in Electro-therapeutics. This Battery is constructed on an improved plan, as follows: The zinc and carbon plates are arranged in couples securely clamped to hard rubber plates with thumb screws. These thumb screws are also used for binding posts. All the connections are positive and brought near together, thus lessening the internal resistance. The cells are made in sections of six, composed of one solid piece of hard vulcanized Rubber. By this arrangement a section can be handled, emptied, cleaned and refilled as easily and quickly as one cell. A hard Rubber drip cup is placed by the side of each section of cells, to receive the zincs and carbon plates when removed from the cells. The rubber plates, which hold the zinc and carbons, project over on one side enough to cover the cells, when the zinc and carbons are placed in the drip cups. The under side of this projection is covered with soft rubber, which is clamped over the sections, which makes the cells water tight, this alone recommends the Battery.

We claim superiority over all other batteries for the reason that by the improved plan of construction and close connections we gain more quantity and intensity of current. We combine all that is desirable in either a Galvanic or Faradic Battery, a combination never before attained. We furnish it with or without the Faradic coil. It weighs less than any other of the same power. It can be carried without spilling the fluid, thus being the only perfect portable Galvanic Battery made. We will be pleased to send circulars giving full information, price, &c., free on application.

McINTOSH GALVANIC BELT AND BATTERY CO.

Nos. 192 and 194 Jackson St., CHICAGO, ILL.

The Best Saddle Bag in the Market.

IT HAS

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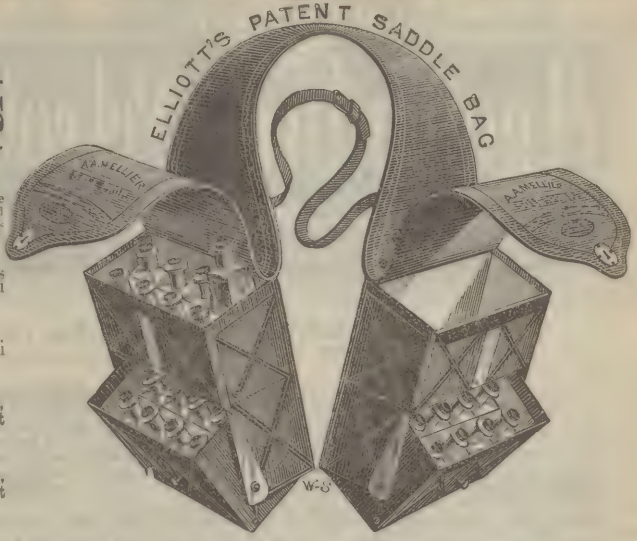
It is made of one piece. Nickel-plated finishings. No seams or stitches.

More ELLIOTT'S patent are sold than all others combined.

Adopted by the U. S. government over all competitors.

Large Size, 30 Vials, Black or Light Leather, $12.00.

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Delivered free of Charges to your nearest Express Office, upon receipt of price.

A. A. MELLIER, *Sole Proprietor, St. Louis.*

TONGALINE

Or Liquor Tongæ Salicylatus.

THE NEW REMEDY FOR NEURALGIA AND RHEUMATISM.

TONGALINE is a efficacious and elegant preparation of Tonga, with powerful salicylates, and commends itself to the medical profession.

EACH FLUID DRACHM OF TONGALINE REPRESENTS:

Tonga	30 grains.	Pilocarpin Salicylate	1-100 grain.
Extractum Cimicifugæ Racemosæ	2 grains.	Colchicin Salicylate	1-500 grain.
Sodium Salicylate	10 grains.		

ST. LOUIS, July 30th, 1883.

I have found TONGALINE a useful combination in rheumatic neuralgia.

C. H. HUGHES, M. D.

FAIRMOUNT, NEB., July 12th, 1883.

I have used TONGALINE with satisfactory results, and can recommend it to the profession as a valuable remedial agent in neuralgia and chronic rheumatism.

G. W. JOHNSON, M. D.

DETROIT, July 12th, 1883.

I have tried TONGALINE in two cases of irregularly recurrent facial neuralgia, and with excellent results; it controls the immediate attack in a few hours, two or three at the outside, and often giving almost immediate relief.

F. W OWEN, M. D.

GARNETT, KANS., July 12th, 1883.

I have tried TONGALINE when specifically indicated, and find it a superb remedy. Can cheerfully recommend it in the various forms of rheumatism.

J. A. HENNING, M. D.

HOPKINS, MO., July 30th, 1883.

I have only used TONGALINE in two cases, one was inter-costal neuralgia, cured with one ounce of it; the other, hemicrania, cured with less than one ounce.

D. A. SARGENT, M. D.

LOUISVILLE, KY, June 12th, 1883.

I have used TONGALINE during the past few weeks in neuralgic affections, many of them in a severe form, with the most gratifying results, and these results have been quite uniform.

T. S. BELL, M. D.

A. A. MELLIER, *Sole Proprietor, St. Louis.*

REGISTERED

COSMOLINE

TRADE MARK.

Unguentum Petrolei

Prepared by E. F. Houghton & Co. Philadelphia, U.S.A.

Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

SAMPLES FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, Cosmoline (Unguentum Petrolei) is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the paraffines and olefines of the formulæ $C_{16}H_{34}$ and $C_{16}H_{32}$. It contains but a small percentage of the paraffines and olefines, corresponding to the formulæ C_7H_{16} and C_7H_{14} respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah. (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

---

291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as manufactured by E. F. Houghton & Co., Philadelphia, and believe them well adapted to the purposes for which they are designed. As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York,
Visiting Surgeon to Presbyterian Hospital, etc.

---

218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & Co.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly, JOHN H. PACKARD, M. D.

Messrs. E. F. HOUGHTON & Co.: 1031 WALNUT STREET, PHILADELPHIA.

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere. I cannot too highly commend it as an application in various skin diseases.

Yours truly, JOHN V. SHOEMAKER, A M, M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases.

Prepared by E. F. HOUGHTON & Co., 211 S. Front St.; Philadelphia.

G. R. FINLAY & CO.,

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AND

WHOLESALE DRUGGISTS,

No. 35 Magazine St. and 12 Bank Place,

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We keep constantly on hand a large and complete stock of

PURE DRUGS FRESH

bought exclusively for CASH, and are prepared to fill all orders entrusted to our care with accuracy and dispatch, and at the lowest possible market rates.

We deal in none but

First Class Goods,

and all medicines sold by us are

GUARANTEED TO BE FRESH AND UNADULTERATED

The success of the physician often depends on the quality of the drug prescribed by him, and we believe our patrons will bear us out in the assertion that the quality of the goods we supply cannot be surpassed.

We are Agents for some of the LARGEST MANUFACTURING ESTABLISHMENTS (both of this country and Europe) for

CHEMICALS,

PHARMACISTS' PREPARATIONS,

SURGICAL INSTRUMENTS AND APPLIANCES,

and all orders will be filled with attention to furnishing such manufactures as are designated. A full stock of

Pure Liquors and Wines of all kinds

are also kept on hand for medicinal purposes.

Grimault & Co. Quinquina Ferruginous Wine.

The preparations of Iron are not always well borne by the stomach. In order to obviate such intolerance, it becomes necessary to combine them with Quinquina, but such a combination can only be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloïds of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina, an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA A FERRUGINEUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty years.

The VIN DE QUINQUINA FERRUGINEUX DE GRIMAULT ET CIE. must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and a desert spoonful for children.

Depot à Paris—8 rue Vivienne.

Pepsic Peptones, with Beef

OF CHAPOTEAUT, 1st CLASS PHARMACIST OF THE FACULTY OF PARIS.

These perfectly pure Peptones contain only pure beef meat well digested and rendered assimilable by pepsin, always officinal and regular, extracted from the stomach of the sheep, digesting with ease from 700 to 800 times their weight of fibrine, not found in commerce. They possess extraordinary power as food, and exercise on the whole economy extraordinary nutritive action. They must not be confounded with those peptones prepared from the stomachs of sheep or the pancreas of pigs, containing as much of substances produced by the digestion of the mucous membrane of the stomach as of beef. There are three varieties:

1. *Wine of Pepsic Peptones of Chapoteaut.*—Containing in each wineglassful the peptone from 10 grammes of beef (2½ drams). Taste agreeable, constituting an excellent food which sick persons and children take with pleasure. It should be taken on commencing meals. Dose, one to two wineglassfuls.

2. *Conserve of Pepsic Peptone, Chapoteaut.*—This product is liquid, neutral, aromatic and easily kept. Each teaspoonful is equivalent to twice its weight of beef, and may be taken in broth, wine, preserves or syrup, or added to nutritive enemata.

3. *Powder of Pepsic Peptone, Chapoteaut.*—This preparation, possessing only the real flavor of meat, presents the advantage of being easily taken in the first spoonful of soup. It is readily soluble in water, broth or wine. Each teaspoonful represents nearly 4 grammes (1 dram) of pure peptone, equal to 5 drams or more than half an ounce of beef, entirely digested and ready for assimilation. Each vial contains 30 grammes or nearly one ounce of peptone, equivalent to nearly half a pound of beef, sufficient to nourish an adult.

Especially indicated in the following affections: Anæmia, Dyspepsia, Cachexia, Debility, Atony of Stomach and Bowels, Convalescence, food for nurses, children and the aged and of phthisical and diabetic subjects.

Syrup of Horse Radish with Iodine,

PREPARED COLD BY GRIMAULT.

It is a good combination of Iodine with the juices of the antiscorbutic plants, water cresses, horse radish, cochlearia, and water trefoil. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures with iodide of potassium and iron, and is a very useful medicine for children, in the lymphatic cachexia and phthisis. The syrup of horse radish with iodine is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each table spoonful represents 5½ centigrams of iodine. The daily dose for children is 1 table spoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. Depot No 8 Viviene street, Paris. For sale in all drug stores

Soluble Phosphate of Iron.

OR PYROPHOSPHATE OF IRON AND SODA.

DELERAS, DOCTOR AND SCIENTIST, PARIS.

This colorless preparation, with no taste or flavor of iron, contains 20 centigrammes (3⅓ grains) of the Pyrophosphate of Iron and Soda to each tablespoonful. The intimate union of these essential elements of bone and blood, Iron and Phosphorus in a soluble state, makes the best chalybeate in Chlorosis, Anemia, Scrofula, Lymphangitis, Convalescence, etc. It does not precipitate in the fluids of the stomach, which insures rapid assimilation, never producing constipation, owing to the presence of a small quantity of the Sulphate of Soda, produced during its preparation.

DUSART'S SYRUP

—OF—

LACTO-PHOSPHATE of LIME,

AN ALIMENT AS WELL AS A MEDICAMENT,

The properties of which are scientifically founded on physiological experiments, has now received the sanction of several years' successful trial by the British medical profession as producing durable reconstituent effects IN ALL CASES OF CACHEXIA OR ADYNAMIA, when nutrition has been impaired by acute or chronic complaints.

LACTO-PHOSPHATE of LIME is PHOSPHATE OF LIME—the natural restorer of muscular fibre as well as bones—made assimilable by the action of its natural solvent, lactic acid.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament specially invaluable for the above cases when complicated with anæmia.

DOSES—For Adults, 3 to 6 Tablespoonfuls a day, for Children 3 to 6 Dessertspoonfuls

---

MIDY'S SANTAL.

The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs. It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas. The urine does not take any odour. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrh.

The Santal of Midy is prepared in small round, transparent capsules, it is chemically pure, and obtained by or from the distillation of Citrine Santal of Bombay.

DOSE—From 10 to 12 Capsules per day, decreasing progressively in proportion with the diminishing discharge.

Depot, Paris, at Midy's Drug store, No. 113 Faubourg, St. Honore Street.

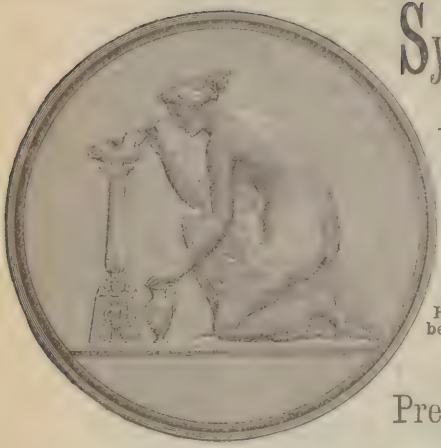
For sale in all Drug Stores.

Depot at ST. CYR FOURCADE'S PHARMACY, 215 Canal, cor. Rampart, New Orleans, and for sale by all druggists and chemists in the city.

CREAM of SUB-NITRATE of BISMUTH,

OF GRIMAULT & CO., PHARMACISTS, PARIS.

Under this form Sub-Nitrate of Bismuth combines intimately with water and is immediately absorbed, owing to the minute division of the drug. To this is due its great efficacy in diarrhœas and dysentery, affections of the stomach, gastritis, gastralgia, colic and ulceration of the intestines. It is the most unobjectionable and the surest remedy for combatting the diarrhœa which is the prodrome of cholera in times of epidemic.



Syr: Hypophos: Comp: C. P.

(McARTHUR.)

For the treatment of Consumption and Tubercular Diseases.]

"I have frequently prescribed DR. MCARTHUR'S SYRUP OF HYPOPHOSPHITES, and have found it to be a therapeutic agent of great value in the treatment of many diseases."
O. G. CILLEY, M. D., Surgeon-General, Mass.

"I now prescribe it habitually in my private practice, and *always with benefit* when the cases are properly selected."
PROF. JOHN S. LYNCH, M. D., Baltimore, Md.

"I must add, that of all the different preparations of Hypophosphites, the best is DR. MCARTHUR'S SYRUP, because *it has always answered my expectations.*"
F. H. COPELAND, M. D., Port Physician, Boston.

Prepared by J. A. McARTHUR, M.D.

Sold by Chemists and Druggists in all parts of the world.

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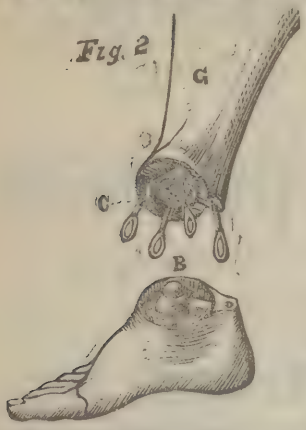
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ARTIFICIAL LIMBS

Have all the Motions of the Natural Ones.

Perfect Satisfaction in Fitting or No Pay asked.

A large assortment of Trusses, Abdominal Supporters, Shoulder-Braces, Elastic Stockings, Crutches, &c., at reasonable prices, and the best workmanship. I will attend to the fitting of each instrument, and guarantee satisfaction. A lady will attend to lady customers.

The following Certificate, from a noted Surgeon, is of interest:

NEW ORLEANS, Dec. 14th, 1881.

"I do not hesitate to say that I have been agreeably surprised at the facility and ease with which Mr. J. L. Gubernator uses an Artificial Leg made by Mr. McDermott of this city, and said to be on the Bly Patent. Having amputated Mr. Gubernator's limb, I feel interested and pleased with the result Respectfully, A. W. SMYTHE, M. D.

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A. McDERMOTT, Manufacturer, 153 Camp St., New Orleans.

Take only and Insist on PLANTEN'S CAPSULES.

THE BEST OF AMERICAN MANUFACTURE.

PLANTEN'S CAPSULES,

KNOWN AS RELIABLE 50 YEARS,

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For 'General Excellence in Manufacture.'

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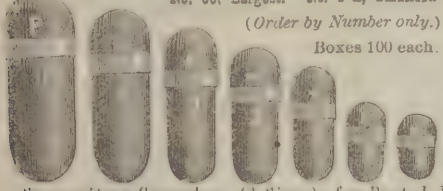
*See note p 64, Profs. VAN BUREN & KEYES on Urinary Organs

Hard and Soft Capsules Filled, of all kinds.

No. 00, Largest. No. 5 X, Smallest.

(*Order by Number only.*)

Boxes 100 each.



EMPTY CAPSULES, (7 Sizes),

Especially adapted and recommended for administering concentrated or nauseous medicines free from taste or smell. Preventing irritation of mouth or throat, and injury to the teeth.

BOX 100, BY MAIL, 50 Cts.

Suppository Capsules, (3 Sizes), for Rectal Medication. Box 100, 50 cents.

We also have VAGINAL CAPSULES, various sizes, and those adapted for giving medicines to HORSES or CATTLE, 2 sizes (ounce and a half ounce), for liquids or solids. Box **10 Capsules**, either size, by mail **50 Cents.**

N. B.—**We make ALL KINDS of Capsules to order.**

New Articles, and Capsuling of Private Formulas a specialty,

Samples sent free. Specify PLANTEN'S CAPSULES on all orders. Sold by all Druggists

I. L. LYONS,

(SUCCESSOR TO BALL, LYONS & CO.)

WHOLESALE

Druggist and Pharmacist,

40 42, 44 CAMP and 111, 113, 115, 117 GRAVIER STS.,

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DEALER IN

Drugs, Chemicals, Essential Oils,

Chemical Apparatus, Surgical Instruments, Electric Apparatus, Medicine Chests, Saddle Bags, Trusses, Supporters, Silk Stockings, Sponges, and all articles used in Medicine and Surgery.

FINE WINES AND LIQUORS,

PERFUMERY, FANCY GOODS, PAINTS, OILS, DYE STUFFS, GLASS, ETC.;

Importer of

FRENCH, ENGLISH AND GERMAN DRUGS AND CHEMICALS.

Importer of Swedish Leeches,
Importer of English Solid Extracts,
Importer of Battley's Liquor Opii Sed.,
Liquor Ergot, Cinchona, Buchu, Taraxacum, etc.,
Importer of French, English and German Proprietary Medicines, Perfumery and Drug Sundries

Only direct Importer in the South of Norwegian or Bergen Cod Liver Oil, White and Brown.

Agent for GEO. TIEMANN & CO.'S SURGICAL INSTRUMENTS,
Which we Sell at Makers' Prices.

Agent for W. R. WARNER & CO.'S SUGAR COATED PILLS

Agent for
SHARPE & DOHMES' AND HENRY THAYER & CO'S SOLID AND FLUID EXTRACTS

Agent for
JNO. WYETH & BRO'S FLUID EXTRACTS, ELIXIRS, WINES, DIALYSED IRON, COMPRESSED PILLS, &C., &C.

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R. L. A. BABCOCK'S SILVER UTERINE SUPPORTER.
DR. McINTOSH'S UTERINE SUPPORTER,
DR. STEPHENSON'S UTERINE SUPPORTER

BLUE LICK, POLAND, BETHESDA AND BLADON WATER.

Always in stock a full line of
ARPENTER'S, ELLIOT'S, ALOE & HERNSTEIN'S AND LESLIE'S SADDLE BAGS, FRESH HUMAN AND BOVINE VACCINE

The extensive Dispensing Department and complete Laboratory connected with my Wholesale Business enables me to give that careful attention to Physicians' Orders necessary to ensure filling them satisfactorily.

Having always exercised the greatest care in the selection of the crude materials employed, and making all pharmaceutical preparations of standard strength, in strict accordance with established and recognized formulas, I have earned and am entitled to the confidence of the profession.

I. L. LYONS.

Pharmaceutical and Medicinal Preparations

FROM LABORATORY OF

I. L. LYONS,

(Successor to BALL, LYONS & CO.)

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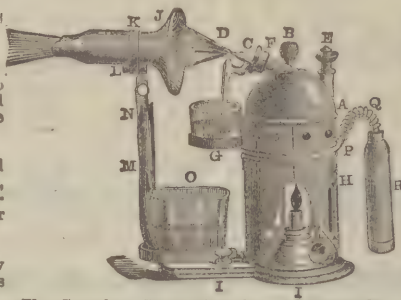
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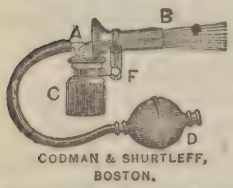
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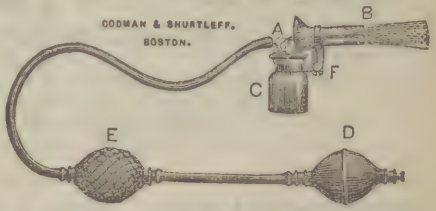
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For Catarrh, dissolve a teaspoonful or two of the extract and a teaspoonful of salt in a pint of warm water and inject into the nostrils with a nasal douche twice a day.

For Sore Throat, dissolve a tablespoonful of the extract in half pint warm water, let it cool, and apply as a gargle repeatedly during the day.

For Gonorrhœa or Gleet, mix one part of the extract with three of water, inject two or three times a day.

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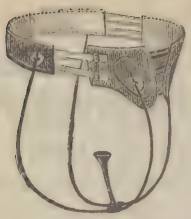
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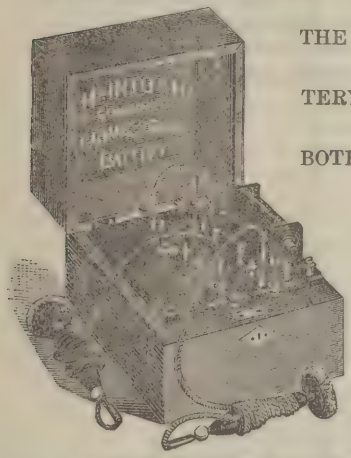
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Each Dose of two teaspoonfuls, equal to 120 drops, contains:

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DISTILLED WATER.... 35 "	BORIC ACID ..... 1-4 "
SOLUBLE PANCREATIN, 5 grains.	HYOCHOLIC ACID ..... 1-20 "

DOSE—Two teaspoonfuls alone, or mixed with twice the quantity of Soft water, to be taken thrice daily with meals.

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The permanence and perfection of the emulsion, and the extreme solubility of the HYDRATED OIL, solely prepared and sold by us under the name of HYDROLEINE, is shown by its retaining its cream-like condition as long as the purest Cod-Liver Oil will retain its sweetness. Unlike the preparations mentioned, or simple Cod-Liver Oil, it produces no unpleasant eructation or sense of nausea, and should be taken in such very much smaller doses, according to the directions, as will insure its complete assimilation; this, at the same time, renders its use economical in the highest degree.

To brain workers of all classes, Hydrated Oil is invaluable, supplying, as it does, the true brain food.

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Moisture	5	to	6	per ct.
Nitrogenous matter (Nitrogen, 2.25 to 2.35)	14.5	"	15	"
Carbo-hydrates, soluble in water	54	"	55	"
Carbo-hydrates, insoluble in water	15	"	16	"
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Ash (inclusive of 0 6 Phosphoric Acid)	2	"	2.5	"

"The proportion of nitrogenous matter or plastic aliments to carbo-hydrates or respiratory constituents in mother's milk is 1:4.5, and in this food the proportion is practically the same, namely 1:5.7. The fat, as a respiratory substance is here reduced to the equivalent of starch.

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SESSION OF 1883-4.

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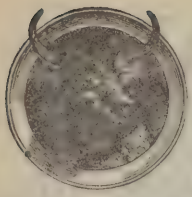
Fees for Tickets to all the Lectures, Clinical and Didactic,	$140 00
Fees for Students who have attended two full courses at other Medical Colleges, and for Graduates of other Medical Colleges	70 00
Matriculation Fee	5 00
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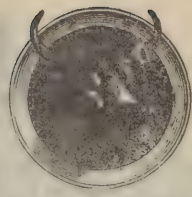
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A CONCENTRATED POWDERED EXTRACT OF BEEF, PARTIALLY DIGESTED AND COMBINED WITH AN EQUAL PORTION OF GLUTEN.

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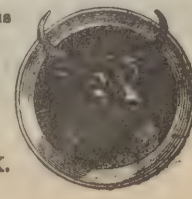


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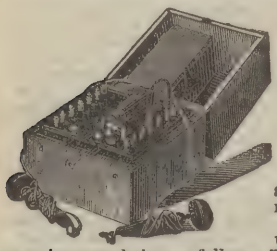
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which possesses eight times the digestive power of the Saccharated; particularly recommended to manufacturers.

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a very active and palatable medicine, containing 4% of Saccharated Pepsin dissolved in acidulated water and glycerine.



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This celebrated Battery combines both the Galvanic and Faradic, or induced current which can be used separate or in combination.

Any strength and intensity desired can be obtained for use in Electro-therapeutics. This Battery is constructed on an improved plan, as follows: The zinc and carbon plates are arranged in couples securely clamped to hard rubber plates with thumb screws. These thumb screws are also used for binding posts. All the connections are positive and brought near together, thus lessening the internal resistance. The cells are made in sections of six, composed of one solid piece of hard vulcanized Rubber. By this arrangement a section can be handled, emptied, cleaned and refilled as easily and quickly as one cell. A hard Rubber drip cup is placed by the side of each section of cells, to receive the zincs and carbon plates when removed from the cells. The rubber plates, which hold the zinc and carbons, project over on one side enough to cover the cells, when the zinc and carbons are placed in the drip cups. The under side of this projection is covered with soft rubber, which is clamped over the sections, which makes the cells water tight, this alone recommends the Battery.

We claim superiority over all other batteries for the reason that by the improved plan of construction and close connections we gain more quantity and intensity of current. We combine all that is desirable in either a Galvanic or Faradic Battery, a combination never before attained. We furnish it with or without the Faradic coil. It weighs less than any other of the same power. It can be carried without spilling the fluid, thus being the only perfect portable Galvanic Battery made. We will be pleased to send circulars giving full information, price, &c., free on application.

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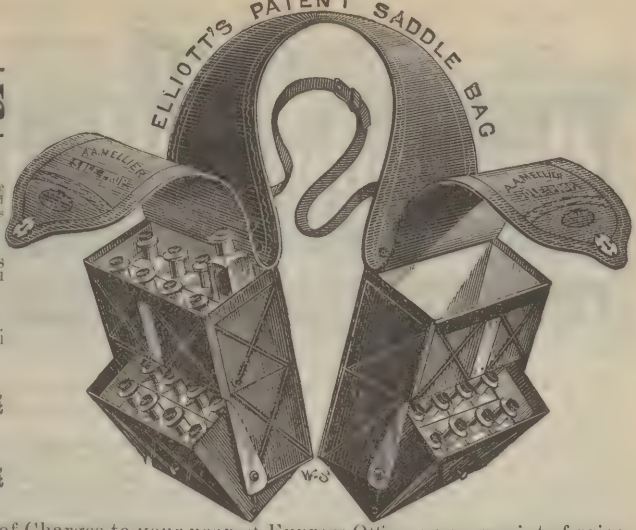
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Tonga	30 grains.	Pilocarpin Salicylate	1-100 grain.
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I have found TONGALINE a useful combination in rheumatic neuralgia.

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I have used TONGALINE with satisfactory results, and can recommend it to the profession as a valuable remedial agent in neuralgia and chronic rheumatism.

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Cosmoline (Unguentum Petrolei) melts at about 100° Fah (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

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Very respectfully yours,

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Physician to the Pennsylvania Free Dispensary for Skin Diseases.

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To be taken at the commencement of each meal; dose: one wineglassful, equal to 10 grammes of Beef.

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This preparation is neutral, liquid and aromatic. Each teaspoonful is equivalent to twice its weight of Beef, and may be taken in broth, preserves or syrup, or in the form of enema. Indicated in Anæmia, Dyspepsia, Debility, Loss of Appetite, Atony of Stomach and Bowels, as a Food for Nurses, Infants, and the aged, and of Phthisical and Diabetic subjects.

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Syrup of Iodized Horse Radish.

PREPARED WITHOUT HEAT BY GRIMAULT & CO.

It is a good combination of Iodine with the juices of the antiscorbutic plants, WATER CRESSES, HORSE RADISH, COCHLEARIA and WATER TREFOIL. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures of iodide of potassium and iron, and is a very useful medicine for children in the lymphatic cachexia and phthisis. The syrup of iodized horse radish is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each tablespoonful represents 5½ centigrams of iodine. The daily dose for children is 1 tablespoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. GRIMAULT & CO., Chemists, depot No. 8 Vivienne street, Paris. For sale in all drug stores.

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These Capsules are very thin, transparent, and disolve easily in the stomach; they contain each 10 centigrams (over 1½ grain English) of the pure Sulphate of Quinine in silky crystals, and are capable indefinite preservation.

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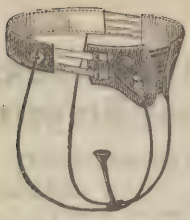
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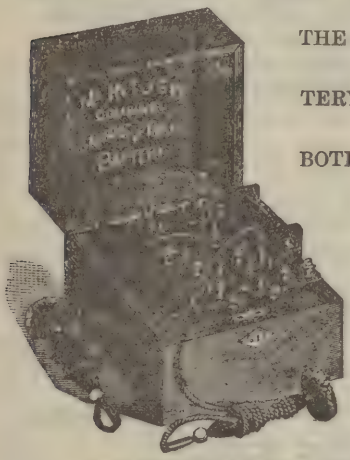
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Each Dose of two teaspoonfuls, equal to 120 drops, contains:

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DISTILLED WATER.... 35 "	BORIC ACID ..... 1-4 "
SOLUBLE PANCREATIN, 5 grains.	HYOCHOLIC ACID ..... 1-20 "

DOSE—Two teaspoonfuls alone, or mixed with twice the quantity of Soft water, to be taken thrice daily with meals.

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Carbo-hydrates, soluble in water	54	"	55	"
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"The Richest Natural Aperient Water."—Baron Liebig in "Lancet."
"Speedy, Sure and Gentle."—Prof. ROBERTS, M.D., F.R.C.P.
"Unrivalled as a Customary Aperient."—British Med. Journal.
"The Potent Hunyadi János."—**Dr. Milner Fothergill.**
"Less drastic than Püllna and Freidrichshall, and produces no distress or uneasiness."—**Prof. Aitken, M.D., F.R.S.**
"Most certain and most comfortable."—Insp.-Gen'l MACPHERSON, M.D.,
Author of 'Baths and Wells of Europe.'

To secure the Genuine Water, require bottles with a blue label bearing the name of the

APOLLINARIS COMPANY, Limited, 19 Regent St., London, Eng.

SOLE AGENTS FOR THE UNITED STATES,

FREDK. DE BARY & CO, 41 and 43 Warren Street, New York

It is most efficacious when taken in the morning fasting, warmed to a temperature not below 60°. or when an equal quantity of hot water is added to it.

MEMORANDUM.

SULPHATE OF QUININE.

The discovery of the Sulphate of Quinine, is eminently French; all our readers know that it was due to Pelletier and Caventou, who received the Montyon Prize.

After Pelletier, Delondre and Levaillant, each founded a Sulphate of Quinine factory; and later, M. Armet of Lisle united the three houses in one, whose product was known under the name of Sulphate of Quinine of *Pelletier*, *Delondre* and *Levaillant, or the three seals.*

Mm. Armet of Lisle did not deviate from the process which was transmitted to them, and their Sulphate of Quinine stood first in all the markets of the world, and in all Expositions they received the highest commendations.

The high price of quinine necessarily resulted in its adulteration. We remember that for thirty years salicine has been employed for this purpose. Later came the chlorohydrate of cinchona, then even the sulphate of cinchonidia, and there are now on the way new derivatives. The English and Dutch cinchonas highly favor the development of mixtures, because they contain considerable quantities of cinchonine, cinchonidine, and from 4 to 8 per cent. of quinine, while the better species from Columbia reach as high as 20 per cent.

The old method of assay of the *Codex* is insufficient for the purpose of recognizing the purity of sulphate of quinine; it is recognized to-day that the polariscope gives the only satisfactory indications. Unfortunately the polariscope is not always at hand for those who prescribe or dispense the salts of quinia. It has been said, to excuse these adulterations, that the materials used have a similarity with sulphate of quinine, the same appearance, same crystalline form, same whiteness, same specific gravity, but this similarity does not include in any manner the same therapeutic action. Here exits the great error which is proven by the fact that quinine injected under

the skin of certain animals will cause stupor, while cinchonine, on the contrary, produces real attacks of epilepsy.

Besides, a recent case has shown, in an irrefutable manner, how different is the action of the pure sulphate of quinine from that mixed with other alkaloids of bark, for, as much as four grammes of this fraudulent mixture can be administered without the least bad effect (Hotel-Dieu, service of M. Hérard).

What we have said shows how desirable it is that physicians should always have at their disposition sulphate of quinine of irreproachable purity. It is to guard against fraud that MM. Armet of Lisle have just added to their manufacture of Pelletier's sulphate of quinine, small capsules composed of a thin envelope of balsam, gelatine and sugar, about the size of a pea and transparent, each containing 10 centigrammes of the salt of quinia in the form of fine silky crystals, which will keep indefinitely. The bitterness of the drug is also completely suppressed, thus allowing it to be taken into the stomach easily, where owing to the ready solution of the envelope it is rapidly absorbed. All physicians know that pills or dragées prepared beforehand by the druggist often pass undissolved through the digestive tract. If we are to believe M. Legouest, wafers even are not free from this objection.

It is not necessary to recall here the cases in which we may use these capsules of quinine. Intermittent fever, typhoid fever, neuralgia and neuroses, rheumatism, etc. Suffice it to say that this medicine is an antiperiodic and powerful antithermic. In healthy persons it produces but a slight fall of temperature; but in sick persons, in typhoid fever, for instance, this fall in six or eight hours amounts to one degree and a half It is well understood that to get this effect it is necessary to use only quinine.

Finally, we may say that, capules of Pelletier's sulphate of quinine are, according to Gubler, the type of neurosthenic tonics. In the dose of from 2 to 4 capsules a day, they renew the strength of the anæmic and chlorotic; arrest the nocturnal sweats of phthisis, and hasten convalescence.

Fluid Hydrastis -- Without Alcohol.

THE WM. S. MERRILL CHEMICAL CO., OF CINCINNATI.

[Late Wm. S. Merrill & Co.]

SOLE MANUFACTURERS.

Sold in Pound Bottles Only.

SUGGESTIONS AS TO USE.

In Leuchorrhea,

with thick albuminous discharge like the white of an egg, use locally by injection, 1 to 4 drs. to one pint of water, thre or four times per day.

In Ghonorrhea,

as an injection; and in Balanites, as a wash use 1 to 2 drs. to water 4 oz.

In Stomatitis,

Pseudo membranous, ulcerative, or gangrenous, when the inflammation is sub-acute, or characterized by profuse secre tion of ropy mucous, use as a gargle or wash in proportion of 1 to 2 drs. to water 4 ounces. When the breath is offen sive. Pot. Chlorate or Baptisia assists its action.

In Cystitis,

acute or chronic, when the urine is pale or greenish, and viscid from abundance of mucous, use internally 1 to 4 drs. in water 4 ounces. In the severer cases of Chronic Cystitis with phosphatic urine, rinsing out the bladder with tepid water, and following with Fluid Hydrastis 1 to 2 drs. to water 4 ounces; one ounce to be used as an injection into the bladder, is often of great benefit.

In Dyspepsia,

with undue atievity of the mucous glands and deficient action of the gastric follicles, of which the symptoms are a heavy loaded tongue, especially at the base; and in the morning, dull aching pains in the stomach, with sinking sensa- tions, nausea, and occasional vomiting of vitiated mucous, use half to one ounce Fluid Hydrastis to a pint of sherry er native wine. Dessert spoonful, 3 or 4 times a day.

In Intermittents,

especially of the type characterized by disease of the Gastro-intestinal mucous membrane, with nausea, heavily coated tongue, broad and flabby and pale, or coate l with yellow, dirty mucous; bowels constipated, or when moved, evacu ations clay colored or streaked with mucous, use 1 to 4 drs. with water 4 ounces. Teaspoonful every three or four hours.

In Catarrh of the Intestines

and superficial ulceration of same; Fistula-in ano, and hemorrhage from the rectum. Internally and locally by injec tion, 1 to 4 drs. to water 4 ounces.

As a Local Application,

to prevent decomposition, applied to the surface of cancerous growths and unhealed ulcers and sores: as an injection into the bowels in diarrhœa and dysentery, and to correct the offensive character of many mucous discharges.

In Many Chronic Diseases,

in which exists undue activity of the mucous membrane in some portion of the body, the remedy is of marked benefit as a general tonic. The following are some convenient forms for internal use:

℞ Fluid Hydrastis ½ to 1 fluid ounce, sherry wine sufficient to make one pint.

or ℞ Finid Hydrastis ½ to 1 fluid ounce, syrup sufficient to make one pint.

or ℞ Fluid Hydrastis ½ to 1 fluid ounce, Glycerine 2 fluid ounces, water sufficient to make one pint.

Teaspoonful to a dessert spoonful three or four times per day.

For sale by Wholesale Druggists throughout the United States.

Also in cases of one dozen bottles, at manufacturer's prices, by

CHAS. N. CRITTENTON,

115 FULTON STREET.

E. J. HART & CO.

Wholesale Druggists, who also keep a full line of the Wm. S. Merrell Chemical Co.'s preparations at mauufacturer's prices.

NEW ORLEANS, LA.

PEPSIN.

E. SCHEFFER, . . Louisville. Ky.

Manufactures by his Improved Method

SACCHARATED PEPSIN,

which has proven its superiority over other Pepsins by its stability and uniformity, and by its agreeable taste.

In digestive power it corresponds to the standard adopted by the Committee on the 6th Revision of the U. S. Pharmacopœia, which is as follows:

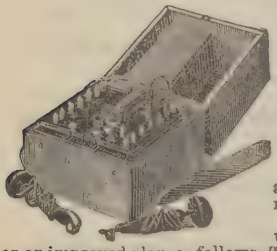
One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

CONCENTRATED DRY PEPSIN,

which possesses eight times the digestive power of the Saccharated; particularly recommended to manufacturers.

LIQUID PEPSIN,

a very active and palatable medicine, containing 4% of Saccharated Pepsin dissolved in acidulated water and glycerine.



DR. McINTOSH'S
Galvanic and Faradic Battery.

This celebrated Battery combines both the Galvanic and Faradic, or induced current which can be used separate or in combination.

Any strength and intensity desired can be obtained for use in Electro-therapeutics. This Battery is constructed on an improved plan, as follows: The zinc and carbon plates are arranged in couples securely clamped to hard rubber plates with thumb screws. These thumb screws are also used for binding posts. All the connections are positive and brought near together, thus lessening the internal resistance. The cells are made in sections of six, composed of one solid piece of hard vulcanized Rubber. By this arrangement a section can be handled, emptied, cleaned and refilled as easily and quickly as one cell. A hard Rubber drip cup is placed by the side of each section of cells, to receive the zincs and carbon plates when removed from the cells. The rubber plates, which hold the zinc and carbons, project over on one side enough to cover the cells, when the zinc and carbons are placed in the drip cups. The under side of this projection is covered with soft rubber, which is clamped over the sections, which makes the cells water tight, this alone recommends the Battery.

We claim superiority over all other batteries for the reason that by the improved plan of construction and close connections we gain more quantity and intensity of current. We combine all that is desirable in either a Galvanic or Faradic Battery, a combination never before attained. We furnish it with or without the Faradic coil. It weighs less than any other of the same power. It can be carried without spilling the fluid, thus being the only perfect portable Galvanic Battery made. We will be pleased to send circulars giving full information, price, &c., free on application.

McINTOSH GALVANIC BELT AND BATTERY CO.

Nos. 192 and 194 Jackson St., CHICAGO, ILL.

The Best Saddle Bag in the Market.

IT HAS

NO DRAWERS

It is made of one piece. Nickel-plated finishings. No seams or stitches.

More ELLIOTT'S patent are sold than all others combined.

Adopted by the U. S. government over all competitors.

Large Size, 30 Vials, Black or Light Leather, $12.00.

Small Size, 24 Vials, Black or Light Leather, $11.00.



Delivered free of Charges to your nearest Express Office, upon receipt of price.

Tongaline

Liquor Tongae Salicylatus

THE NEW REMEDY FOR NEURALGIA AND RHEUMATISM.

Tonga is a product of the Tonga or Friendly Islands, and has long been enused as a domestic remedy by the natives of the Fiji Group. It was introduced to the notice of the medical profession by Drs. Ringer and Murrell, of London, England, who have made some very thorough and most satisfactory experiments as to its therapeutic value.

TONGALINE is an efficacious and elegant preparation of Tonga, with powerful salicylates, and commends itself to the medical profession.

EACH FLUID DRACHM OF TONGALINE REPRESENTS:

Tonga	30 grains.	Pilocarpin Salicylate	1-100 grain.
Extractum Cimicifugæ Racemosæ	3 grains.	Colchicin Salicylate	1-100 grain.
Sodium Salicylate	10 grains.		

ST. LOUIS, July 20th, 1883.

I have found TONGALINE a useful combination in rheumatic neuralgia.

C. H. HUGHES, M. D.

FAIRMOUNT, NEB., July 14th, 1883.

I have used TONGALINE with satisfactory results, and can recommend it to the profession as a valuable remedial agent in neuralgia and chronic rheumatism.

G. W. JOHNSTON, M. D.

DETROIT, July 12th, 1883.

I have tried TONGALINE in two cases of irregularly recurrent facial neuralgia, and with excellent results; it controls the immediate attack in a few hours, two or three at the outside, and often giving almost immediate relief.

F. W. OWEN, M. D.

GARNETT, KANS., July 12th, 1883.

I have tried TONGALINE when specifically indicated, and find it a superb remedy. Can cheerfully recommend it in the various forms of rheumatism.

J. A. HENNING, M. D.

LOUISVILLE, KY., June 12th, 1883.

I have used TONGALINE during the past few weeks in neuralgic affections, many of them in a severe form, with the most gratifying results, and these results have been quite uniform.

T. S. BELL, M. D.

ROCKWOOD, N. C., July 18th, 1883.

I have used TONGALINE with marked benefit in a case of neuralgia, and obtained relief when a number of the ordinary remedies had entirely failed.

G. E. MATTHEWS, M. D.

A. A. MELLIER, *Sole Proprietor, St. Louis, Mo.*

REGISTERED

COSMOLINE

TRADE MARK.

Unguentum Petrolei

Prepared by E F Houghton & Co. Philadelphia U.S.A.

Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

LABELS FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, Cosmoline (Unguentum Petrolei) is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the paraffines and olefines of the formulæ C16H34 and C16H32. It contains but a small percentage of the paraffines and olefines, corresponding to the formulæ C7 H16 and C7 H14 respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah. (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as manufactured by E. F. Houghton & Co., Philadelphia, and believe them well adapted to the purposes for which they are designed. As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York,
Visiting Surgeon to Presbyterian Hospital, etc.

218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & Co.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæcological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly, JOHN H. PACKARD, M. D.

Messrs. E. F HOUGHTON & Co.: 1031 WALNUT STREET, PHILADELPHIA.

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere. I cannot too highly commend it as an application in various skin diseases.

Yours truly, JOHN V. SHOEMAKER, A. M., M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases

Prepared by E. F. HOUGHTON & Co., 211 S. Front St., Philadelphia

G. R. FINLAY & CO.,

IMPORTERS

AND

WHOLESALE DRUGGISTS,

No. 35 Magazine St. and 12 Bank Place,

NEW ORLEANS, LA.

We keep constantly on hand a large and complete stock of

PURE **DRUGS** FRESH

bought exclusively for CASH, and are prepared to fill all orders entrusted to our care with accuracy and dispatch, and at the lowest possible market rates.

We deal in none but

First Class Goods,

and all medicines sold by us are

GUARANTEED TO BE FRESH AND UNADULTERATED

The success of the physician often depends on the quality of the drug prescribed by him, and we believe our patrons will bear us out in the assertion that the quality of the goods we supply cannot be surpassed.

We are Agents for some of the LARGEST MANUFACTURING ESTABLISHMENTS (both of this country and Europe) of

CHEMICALS,

PHARMACISTS' PREPARATIONS,

SURGICAL INSTRUMENTS AND APPLIANCES

and all orders will be filled with attention to furnishing such manufactures as are designated. A full stock of

Pure Liquors and Wines of all kinds

are also kept on hand for medicinal purposes.

The Peptones of Chapoteaut, of Beef, prepared exclusively with pure Pepsine of the Sheep, is prescribed in the following forms:

Chapoteaut's Wine of Peptones;

To be taken at the commencement of each meal: dose: one wineglassful, equal to 10 grammes of Beef.

Chapoteaut's Conserve of Peptones.

This preparation is neutral, liquid and aromatic. Each teaspoonful is equivalent to twice its weight of Beef, and may be taken in broth, preserves or syrup, or in the form of enema. Indicated in Anæmia, Dyspepsia, Debility, Loss of Appetite, Atony of Stomach and Bowels, as a Food for Nurses, Infants, and the aged, and of Phthisical and Diabetic subjects.

CHAPOTEAUT, Pharmacist, 8 rue Vivienne, Paris.

Syrup of Iodized Horse Radish.

PREPARED WITHOUT HEAT BY GRIMAULT & CO.

It is a good combination of Iodine with the juices of the antiscorbutic plants, WATER CRESSES, HORSE RADISH, COCHLEARIA and WATER TREFOIL. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures of iodide of potassium and iron, and is a very useful medicine for children in the lymphatic cachexia and phthisis. The syrup of iodized horse radish is used in Paris as a substitute for cod liver oil: it never causes any accident of intolerance. Each tablespoonful represents 5½ centigrams of iodine. The daily dose for children is 1 tablespoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. GRIMAULT & Co., Chemists, depot No. 8 Vivienne street, Paris. For sale in all drug stores.

Pelletier's Capsules of Sulphate of Quinine,

PREPARED BY MESSRS. ARMET DE LISLE & CIE.,

Successors of PELLETIER, DELONDRE & LEVAILLANT, with their Renowned "QUININE DES TROIS CACHETS,"

These Capsules are very thin, transparent, and disolve easily in the stomach; they contain each 10 centigrams (over 1½ grain English) of the pure Sulphate of Quinine in silky crystals, and are capable indefinite preservation.

Sold in bottles of ten or twenty Capsules.

By RIGAND & DUSARL, Chemists, 8 rue Vivienne, Paris.

Grimault & Co. Quinquina Ferruginous Wine.

The preparations of Iron are not always well borne by the stomach. In order to obviate any intolerance, it becomes necessary to combine them with Quinquina, but such a combination can ouly be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA FERRUGINEAUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty ysars.

The VIN DE QUINQUINA FERRUGINEAUX DE GRIMAULT ET CIE., must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and dessert spoonful for children.

Depot à Paris—8 rue Vivienne.

DUSART'S SYRUP AND WINE

—OF—

Lacto-Phosphate of Lime,

AN ALIMENT AS WELL AS A MEDICAMENT,

The properties of which are scientifically founded on physiological experimeuts, has now received the sanction of several years' successful trial by the medical profession as producing durable reconstituent effects IN ALL CASES OF CACHEXIA OR ADYNAMIA, when nutrition has been impaired by acute or chronic complaints.

LACTO-PHOSPHATE of LIME is PHOSPHATE OF LIME—the natural restorer of the muscular fibre as well as bones—made assimilable by the action of its natural solvent, lactic acid.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament especially invaluable for the above cases when complicated with anæmia.

DOSES—For Adults, 3 to 6 table spoonfuls a day; for Children, 3 to 6 dessert spoonfuls a day.

DUSART, Pharmacist, 8 rue Vivienne, Paris.

MIDY'S SANTAL.

The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs.

It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas. The urine does not take any odor. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrh.

The Santal of Midy is prepared in small round, transparent capsules, it is chemically, pure, and obtained by or from the distillation of Citrine Santal of Bombay.

DOSE From 10 to 12 Capsules per day; decreasing progressively in proportion with the diminishing discharge.

MIDY, Pharmacist, 113 Faubourg Honore, Paris.

Soluble Phosphate of Iron,

OR PYROPHOSPHATE OF IRON AND SODA.

DELERAS, DOCTOR ES-SCIENCES, PARIS.

This colorless preparation, with no taste or flavor of iron, contains 20 centigrammes (3¼ grains) of the Pyrophosphate of Iron and Soda to each table spoonful. The intimate union of these essential elements of bone and blood, Iron and Phosphorus in a soluble state, makes the best chalybeate in Chlorosis, Anæmia, Scrofula, Lymphangitis, Convalescence, etc. It does not precipitate in the fluids of the stomach, which ensures rapid assimilation, never producing constipation, owing to the presence of a small quantity of the Sulphate of Soda, produced during its preparation.

Chapoteaut's Pearls of Pure Pepsine.

Up to the present time, physicians have never been able to use *pure Pepsine*, the best preparations being in effect but a mixture of 20 to 25 per cent. of Pepsine of starch, with 75 per cent. of sugar of milk, or gelatine. The works of *Mr, Chapoteaut*, published by the Academy of Sciences, of Paris, have shown that it can be obtained pure. To ensure its preservation it is enclosed in small round capsules, each containing four (4) grains. One gramme (15 grains) of this Pepsine will digest 35 grammes of beef. The amount contained in each pearl is four times as active as one gramme of lactic or amylaceous Pepsine. Each vial contains 40 pearls.

CHAPOTEAUT, 8 rue Vivienne, Paris.

FOUGERA, 30 North William street, New York.

Depot at ST. CYR FOURCADE'S PHARMACY, 215 Canal, corner Rampart, New Orleans, and for sale by all druggists and chemists in the city.



Syr: Hypophos: Comp: C. P.

(McARTHUR.)

For the treatment of Consumption and Tubercular Diseases.]

"I have frequently prescribed DR. McARTHUR'S SYRUP OF HYPOPHOSPHITES, and have found it to be a therapeutic agent of great value in the treatment of many diseases."
O. G. CILLEY, M. D., Surgeon-General, Mass.

"I now prescribe it habitually in my private practice, and *always with benefit* when the cases are properly selected."
PROF. JOHN S. LYNCH, M. D., Baltimore, Md.

"I must add, that of all the different preparations of Hypophosphites, the best is DR. McARTHUR'S SYRUP, because *it has always answered my expectations.*"
F. H. COPELAND, M. D., Port Physician, Boston.

Prepared by J. A. McARTHUR, M.D.

Sold by Chemists and Druggists in all parts of the world.

L. GRAHAM & SON,

127 Gravier Street,

NEW ORLEANS,

MAKE A SPECIALTY OF

BOOK PRINTING.

DR. DOUGLAS BLY'S



CELEBRATED PATENT



ARTIFICIAL LIMBS

Have all the Motions of the Natural Ones.

Perfect Satisfaction in Fitting or No Pay asked.

A large assortment of Trusses, Abdominal Supporters, Shoulder-Braces, Elastic Stockings, Crutches, &c., at reasonable prices, and the best workmanship. I will attend to the fitting of each instrument and guarantee satisfaction. A lady will attend to lady customers.

The following Certificate, from a noted Surgeon, is of interest:

NEW ORLEANS, Dec. 14th, 1881.

"I do not hesitate to say that I have been agreeably surprised at the facility and ease with which Mr. J. L. Gubernator uses an Artificial Leg made by Mr. McDermott of this city, and said to be on the Bly Patent. Having amputated Mr. Gubernator's limb, I feel interested and pleased with the result. Respectfully, A. W. SMYTHE, M. D

☞ Pamphlet and Price List sent free. Address,

A. McDERMOTT, Manufacturer, 153 Camp St., New Orleans.

TAKE Only and Insist on "THE BEST OF AMERICAN MANUFACTURE."

PLANTEN'S CAPSULES*

Known as Reliable nearly 50 Years.

*See note, page 64, Prof. Van Buren & Keyes on Urinary Organs.

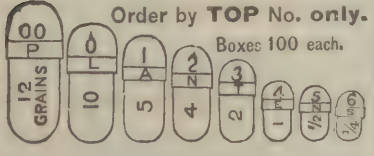
Premium for "General Excellence in Manufacture."

H. PLANTEN & SON, 224 William St., New York.

Hard and Soft Elastic CAPSULES All Kinds Filled,

(9 sizes), 3, 5, 10 and 15 Minims, and 1, 2½, 5, 10 and 15.

EMPTY, 8 Sizes.



Order by **TOP** No. only.

Boxes 100 each.

For taking medicines free of taste, smell, injury to teeth, mouth or throat.

100 BY MAIL, 50 CENTS.

N. B.—We make ALL KINDS of Capsules to order. ☞ New Articles in capsuling, and Private Formulas a specialty.

SAMPLES SENT FREE.

RECTAL, 3 Sizes.

3, 6 and 12 grains.

VAGINAL, 4 Sizes.

⅛, ¼, 1-16 and 1-32 ounce.

HORSE, 5 Sizes.

1, 2, 3, 4 and 8 drams. For giving liquids or solids to Horses and Cattle.

DOG WORM,

5 Minims Oil of Male Fern.

Capsules for Mechanical Purposes

SOLD BY ALL DRUGGISTS.

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DOSE.—One or two *fluid* drachms (more or less as indicated) *three* times a day before meals.

Iodia is the *Ideal* Alterative. ☞It has been LARGELY PRESCRIBED in syphilitic, scrofulous, cutaneous, and female diseases, and has an established reputation as being the best alterative ever introduced to the Profession.

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Cocalac is a combination of Coca and the Cereal Lacto-Phosphoids.

DOSE.—*One tablespoonful three times a day, or oftener, as indicated.*

STIMULATION WITHOUT REACTION.

Physicians who use the genuine Coca *in the form of Cocalac*, are agreeably surprised to find that it is quite a different thing from the ordinary commercial Coca, which has generally lost its volative properties, and is besides, usually, adulterated, and, hence, is almost worthless.

COCALAC improves the appetite exhilarates the spirits, and gives tone and vigor to the entire system. Every physician who has used it testifies that it is a pleasant tonic and stimulant removing fatigue and languor. Its effects on the brain is to stimulate that organ to greater activity and to relieve the mind of the depression incident to worry and anxiety.

Physicians and literary workers can exert themselves *beyond the natural enduring power* by using COCALAC. The activity of the mind, when under its influence, is *greatly increased* without the reaction following the use of alcoholic stimulants.

COCALAC is a scientific blending of the genuine Coca wth the Lacto-Phosphoidal principle of wheat and oats; it is VERY NUTRITIOUS, *being capable of sustaining life without any other food or drink* it is also the best form for the convalescing, dyspeptic, or nervous patient, *as it is delicious to the taste and* ACCEPTABLE *to the stomach.*

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FORMULA—Every fluid-Drachm represents FIVE grains EACH—Celery, Coca, Kola, Viburnum and Aromatics.

INDICATIONS.—Impotency, Loss of Nerve Power (so usual with Lawyers, Preachers, Writers and Business Men), Nervous Headache, Neuralgia, Paralysis, Dysmenorrhœa, Hysteria, Opium Habit, Prostatitis, Dyspepsia, and ALL LANGUID or DEBILITATED conditions of the System—*Indispensable to restore a patient after alcoholic excess.*

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A Most Valuable Non-Irritating Remedy in all Diseases of the Mucous Surfaces Requiring an Astringent.

AS AN INTERNAL REMEDY IN ALBUMINURIA, DIARRHŒA, DYSENTERY, NIGHT-SWEATS, HEMORRHAGES, OR PROFUSE EXPECTORATION, mix one part of the extract with five of warm water; let it cool and take a teaspoonful of the solution every three hours or oftener, as the case may require.

FOR LEUCORRHEA and other VAGINAL DISEASES, dissolve a tablespoonful or two in a pint of warm water and *inject twice a day.*

FOR PROTRUDING OR ITCHING, PILES, mix one-fourth of glycerine and apply as often as convenient. FISSURES OF THE ANUS, SORES, ULCERS, BURNS, OR SCALDS, the extract should be applied in its full strength.

FOR CATARRH and SORE THROAT, dissolve a teaspoonful of the extract in a pint of warm water and inject into the nostrils and throat with a nasal douche twice a day.

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FRESH COCA LEAVES of the June crop always in stock.

Chloral and Methylated Chloroform.

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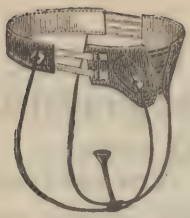
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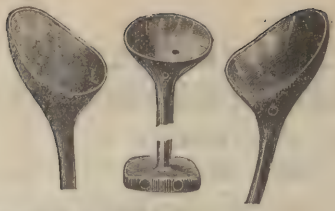
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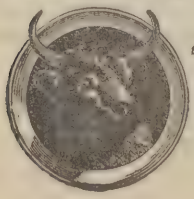
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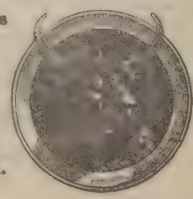


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"*The Richest Natural Aperient Water.*"—Baron Liebig in "Lancet."
"*Speedy, Sure and Gentle.*"—Prof. ROBERTS, M.D., F.R.C.P.
'*Unrivalled as a Customary Aperient.*"—British Med. Journal.
"*The Potent Hunyadi János.*"—**Dr. Milner Fothergill.**
"*Less drastic than Püllna and Freidrichshall, and produces no distress or uneasiness.*"—**Prof. Aitken, M.D., F.R.S.**
"*Most certain and most comfortable.*"—Insp.-Gen'l MACPHERSON, M.D.,
Author of 'Baths and Wells of Europe.'

To secure the Genuine Water, require bottles with a blue label bearing the name of the

APOLLINARIS COMPANY, Limited, 19 Regent St., London, Eng.

SOLE AGENTS FOR THE UNITED STATES,

FREDK. DE BARY & CO, 41 and 43 Warren Street, New York

It is most efficacious when taken in the morning fasting, warmed to a temperature not below 60°. or when an equal quantity of hot water is added to it.

Fluid Hydrastis -- Without Alcohol.

THE WM. S. MERRELL CHEMICAL CO., OF CINCINNATI.

[Late Wm. S. Merrell & Co.]

—— SOLE MANUFACTURERS. ——

Sold in Pound Bottles Only.

SUGGESTIONS AS TO USE.

In Leuchorrhea,

with thick albuminous discharge like the white of an egg, use locally by injection, 1 to 4 drs. to one pint of water, three or four times per day.

In Ghonorrhea,

as an injection; and in Balanites, as a wash use 1 to 2 drs. to water 4 oz.

In Stomatitis,

Pseudo membranous, ulcerative, or gangrenous, when the inflammation is sub-acute, or characterized by profuse secretion of ropy mucous, use as a gargle or wash in proportion of 1 to 2 drs. to water 4 ounces. When the breath is offensive. Pot. Chlorate or Baptisia assistsits action.

In Cystitis,

acute or chronic, when the urine is pale or greenish, and viscid from abundance of mucous, use internally 1 to 4 drs. in water 4 ounces. In the severer cases of Chronic Cystitis with phosphatic urine, rinsing out the bladder with tepid water, and following with Fluid Hydrastis 1 to 2 drs. to water 4 ounces; one ounce to be used as an injection into the bladder, is often of great benefit.

In Dyspepsia,

with undue atievity of the mucous glands and deficient action of the gastric follicles, of which the symptoms are a heavy loaded tongue, especially at the base; and in the morning, dull aching pains in the stomach, with sinking sensations, nausea, and occasional vomiting of vitiated mucous, use half to one ounce Fluid Hydrastis to a pint of sherry or native wine. Dessert spoonful, 3 or 4 times a day.

In Intermittents,

especially of the type characterized by disease of the Gastro-intestinal mucous membrane, with nausea, heavily coated tongue, broad and flabby and pale, or coated with yellow, dirty mucous; bowels constipated, or when moved, evacuations clay colored or streaked with mucous, use 1 to 4 drs. with water 4 ounces. Teaspoonful every three or four hours.

In Catarrh of the Intestines

and superficial ulceration of same; Fistula-in-ano, and hemorrhage from the rectum. Internally and locally by injection, 1 to 4 drs. to water 4 ounces.

As a Local Application,

to prevent decomposition, applied to the surface of cancerous growths and unhealed ulcers and sores; as an injection into the bowels in diarrhœa and dysentery, and to correct the offensive character of many mucous ditsharges.

In Many Chronic Diseases,

in which exists undue activity of the mucous membrane in some portion of the body, the remedy is of marked benefit as a general tonic. The following are some convenient forms for internal use:

℞ Fluid Hydrastis ½ to 1 fluid ounce, sherry wine sufficient to make one pint.

or ℞ Fluid Hydrastis ½ to 1 fluid ounce, syrup sufficient to make one pint.

or ℞ Fluid Hydrastis ½ to 1 fluid ounce, Glycerine 2 fluid ounces, water sufficient to make one pint.
Teaspoonful to a dessert spoonful three or four times per day.

For sale by Wholesale Druggists throughout the United States.

Also in cases of one dozen bottles, at manufacturer's prices, by

CHAS. N. CRITTENTON,

115 FULTON STREET.

E. J. HART & CO.

Wholesale Druggists, who also keep a full line of the Wm. S. Merrell Chemical Co.'s preparations at manufacturer's prices.

NEW ORLEANS, LA.

PEPSIN.

E. SCHEFFER, . . Louisville. Ky.

Manufactures by his Improved Method

SACCHARATED PEPSIN,

which has proven its superiority over other Pepsins by its stability and uniformity, and by its agreeable taste.

In digestive power it corresponds to the standard adopted by the Committee on the 6th Revision of the U. S. Pharmacopœia, which is as follows:

One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

CONCENTRATED DRY PEPSIN,

which possesses eight times the digestive power of the Saccharated; particularly recommended to manufacturers.

LIQUID PEPSIN,

a very active and palatable medicine, containing 4% of Saccharated Pepsin dissolved in acidulated water and glycerine.



DR. McINTOSH'S
Galvanic and Faradic Battery.

This celebrated Battery combines both the Galvanic and Faradic, or induced current which can be used separate or in combination.

Any strength and intensity desired can be obtained for use in Electro-therapeutics. This Battery is constructed on an improved plan, as follows: The zinc and carbon plates are arranged in couples securely clamped to hard rubber plates with thumb screws. These thumb screws are also used for binding posts. All the connections are positive and brought near together, thus lessening the internal resistance. The cells are made in sections of six, composed of one solid piece of hard vulcanized Rubber. By this arrangement a section can be handled, emptied, cleaned and refilled as easily and quickly as one cell. A hard Rubber drip cup is placed by the side of each section of cells, to receive the zincs and carbon plates when removed from the cells. The rubber plates, which hold the zinc and carbons, project over on one side enough to cover the cells, when the zinc and carbons are placed in the drip cups. The under side of this projection is covered with soft rubber, which is clamped over the sections, which makes the cells water tight, this alone recommends the Battery.

We claim superiority over all other batteries for the reason that by the improved plan of construction and close connections we gain more quantity and intensity of current. We combine all that is desirable in either a Galvanic or Faradic Battery, a combination never before attained. We furnish it with or without the Faradic coil. It weighs less than any other of the same power. It can be carried without spilling the fluid, thus being the only perfect portable Galvanic Battery made. We will be pleased to send circulars giving full information, price, &c., free on application.

McINTOSH GALVANIC BELT AND BATTERY CO.

Nos. 192 and 194 Jackson St., CHICAGO, ILL.

Tongaline

Liquor Tongae Salicylatus

THE NEW REMEDY FOR NEURALGIA AND RHEUMATISM.

Tonga is a product of the Tonga or Friendly Islands, and has long be enused as a domestic remedy by the natives of the Fiji Group. It was introduced to the notice of the medical profession by Drs. Ringer and Murrell, of London, England, who have made some very thorough and most satisfactory experiments as to its therapeutic value.

TONGALINE is an efficacious and elegant preparation of Tonga, with powerful salicylates, and commends itself to the medical profession.

EACH FLUID DRACHM OF TONGALINE REPRESENTS:

Tonga	30 grains.	Pilocarpin Salicylate	1-100 grain.
Extractum Cimicifugæ Racemosæ	2 grains.	Colchicin Salicylate	1-500 grain.
Sodium Salicylate	10 grains.		

ST. LOUIS, July 20th, 1883.

I have found TONGALINE a useful combination in rheumatic neuralgia.

C. H. HUGHES, M. D.

DETROIT, July 12th, 1883.

I have tried TONGALINE in two cases of irregularly recurrent facial neuralgia, and with excellent results; it controls the immediate attack in a few hours, two or three at the outside, and often giving almost immediate relief.

F. W. OWEN, M. D.

ST. LOUIS, Nov. 17, 1883.

I am glad to inform you that the formula for your preparation, TONGALINE, is a very excellent one. Have had occasion to prescribe it in several cases of rheumtaic-neuralgic affections of long standing, which seemingly resisted other remedies, and in some of them the TONGALINE produced most excellent results.

T. GRISWOLD COMSTOCK, A. M., M. D.

INDIANAPOLIS, IND., Nov. 17, 1883.

I have used TONGALINE in five different cases—three facial neuralgia, one neuralgia of the heart, and one chronic rheumatism. Secured relief in each case; as also in one of the most obstinate cases of rheumatism, when other remedies had failed.

O. B. PETTIJOHN, M. D.

ST. PAUL, MINN., Nov. 16, 1883.

I am prescribing TONGALINE with satisfactory results. For the indefinite aches and pains of nervous patients it is superior to any other anodyne. For nervous headache or muscular rheumatism, it is almost a specific.

PARK RITCHIE, M. D.

FRANKFORT, KY., Nov. 22, 1883.

I have prescribed TONGALINE frequently in my practice. It has done all and even more than I had hoped to be able to do with it.

S. F. SMITH, M. D.

CLEVELAND, OHIO, July 30, 1883.

I have used your preparation, TONGALINE, extensively, and have been well satisfied with its results. You are to be congratulated on the value of article which you offer to physicians.

REUBEN A. VANCE, M. D.

LOUISVILLE, KY., June 12th, 1883.

I have used TONGALINE during the past few weeks in neuralgic affections, many of them in a severe form, with the most gratifying results, and these results have been quite uniform.

T. S. BELL, M. D.

IT HAS

NO DRAWERS

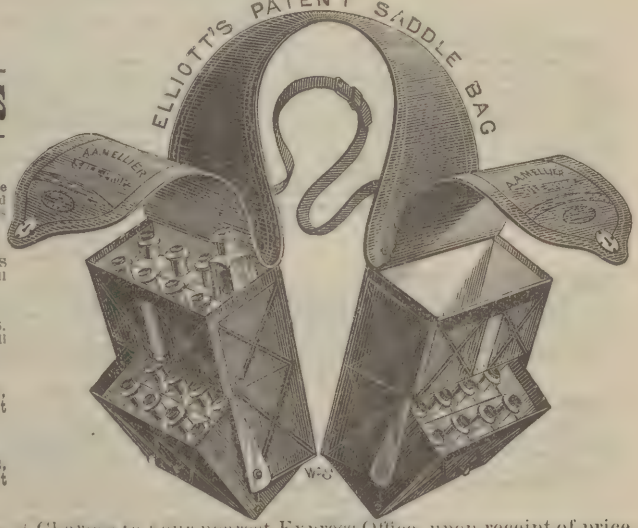
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More ELLIOTT'S patent are sold than all others combined.

Adopted by the U. S. government over all competitors.

Large Size, 30 Vials, Black or Light Leather, $12.00.

Small Size, 24 Vials, Black or Light Leather, $11.00.



Delivered free of Charges to your nearest Express Office, upon receipt of price.

A. A. MELLIER, *Sole Proprietor, St. Louis, Mo.*



Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

SAMPLES FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, Cosmoline (Unguentum Petrolei) is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the parafines and olefines of the formulæ C16H34 and C16H32. It contains but a small percentage of the parafines and olefines, corresponding to the formulæ C7 H16 and C7 H14 respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah. (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is abont 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

---

291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as mahufactured by E. F. Houghton & Co, Philadelphia, and believe them well adapted to the purposes for which they are designed. As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York,
Visiting Surgeon to Presbyterian Hospital, etc.

---

218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & Co.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly, JOHN H. PACKARD, M. D.

Messrs. E. F HOUGHTON & Co.: 1031 WALNUT STREET, PHILADELPHIA.

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere. I cannot too highly commend it as an application in various skin diseases.

Yours truly, JOHN V. SHOEMAKER, A M, M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases

Prepared by E. F. HOUGHTON & Co., 211 S. Front St., Philadelphia

G. R. FINLAY & CO.,

IMPORTERS

AND

WHOLESALE DRUGGISTS,

No. 35 Magazine St. and 12 Bank Place,

NEW ORLEANS, LA.

We keep constantly on hand a large and complete stock of

PURE **DRUGS** FRESH

bought exclusively for CASH, and are prepared to fill all orders entrusted to our care with accuracy and dispatch, and at the lowest possible market rates.

We deal in none but

First Class Goods,

and all medicines sold by us are

GUARANTEED TO BE FRESH AND UNADULTERATED

The success of the physician often depends on the quality of the drug prescribed by him, and we believe our patrons will bear us out in the assertion that the quality of the goods we supply cannot be surpassed.

We are Agents for some of the LARGEST MANUFACTURING ESTABLISHMENTS (both of this country and Europe) in

CHEMICALS,

PHARMACISTS' PREPARATIONS,

SURGICAL INSTRUMENTS AND APPLIANCES

and all orders will be filled with attention to furnishing such manufactures as are designated. A full stock of

Pure Liquors and Wines of all kinds

are also kept on hand for medicinal purposes.

The Peptones of Chapoteaut, of Beef, prepared exclusively with pure Pepsine of the Sheep, is prescribed in the following forms:

Chapoteaut's Wine of Peptones;

To be taken at the commencement of each meal: dose: one wineglassful, equal to 10 grammes of Beef.

Chapoteaut's Conserve of Peptones.

This preparation is neutral, liquid and aromatic. Each teaspoonful is equivalent to twice its weight of Beef, and may be taken in broth, preserves or syrup, or in the form of enema. Indicated in Anæmia, Dyspepsia, Debility, Loss of Appetite, Atony of Stomach and Bowels, as a Food for Nurses, Infants, and the aged, and of Phthisical and Diabetic subjects.

CHAPOTEAUT, Pharmacist, 8 rue Vivienne, Paris.

Syrup of Iodized Horse Radish.

PREPARED WITHOUT HEAT BY GRIMAULT & CO.

It is a good combination of Iodine with the juices of the antiscorbutic plants, WATER CRESSES, HORSE RADISH, COCHLEARIA and WATER TREFOIL. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures of iodide of potassium and iron, and is a very useful medicine for children in the lymphatic cachexia and phthisis. The syrup of iodized horse radish is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each tablespoonful represents 5½ centigrams of iodine. The daily dose for children is 1 tablespoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. GRIMAULT & CO., Chemists, depot No. 8 Vivienne street, Paris. For sale in all drug stores.

Pelletier's Capsules of Sulphate of Quinine,

PREPARED BY MESSRS. ARMET DE LISLE & CIE.,

Successors of PELLETIER, DELONDRE & LEVAILLANT, with their Renowned

"QUININE DES TROIS CACHETS,"

These Capsules are very thin, transparent, and disolve easily in the stomach: they contain each 10 centigrams (over 1½ grain English) of the pure Sulphate of Quinine in silky crystals, and are capable indefinite preservation.

Sold in bottles of ten or twenty Capsules.

By RIGAND & DUSARL, Chemists, 8 rue Vivienne, Paris.

Grimault & Co. Quinquina Ferruginous Wine.

The preparations of Iron are not always well borne by the stomach. In order to obviate any intolerance, it becomes necessary to combine them with Quinquina, but such a combination can ouly be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties: the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA FERRUGINEAUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty ysars.

The VIN DE QUINQUINA FERRUGINEAUX DE GRIMAULT ET CIE., must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and dessert spoonful for children.

Depot à Paris—8 rue Vivienne.

DUSART'S SYRUP AND WINE

—OF—

Lacto-Phosphate of Lime,

AN ALIMENT AS WELL AS A MEDICAMENT,

The properties of which are scientifically founded on physiological experiments, has now received the sanction of several years' successful trial by the medical profession as producing durable reconstituent effects IN ALL CASES OF CACHEXIA OR ADYNAMIA, when nutrition has been impaired by acute or chronic complaints.

LACTO-PHOSPHATE of LIME is PHOSPHATE OF LIME—the natural restorer of the muscular fibre as well as bones—made assimilable by the action of its natural solvent, lactic acid.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament especially invaluable for the above cases when complicated with anæmia.

DOSES—For Adults, 3 to 6 table spoonfuls a day; for Children, 3 to 6 dessert spoonfuls a day.

DUSART, Pharmacist, 8 rue Vivienne, Paris.

MIDY'S SANTAL.

The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs.

It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas. The urine does not take any odor. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrh.

The Santal of Midy is prepared in small round, transparent capsules, it is chemically, pure, and obtained by or from the distillation of Citrine Santal of Bombay.

DOSE From 10 to 12 Capsules per day; decreasing progressively in proportion with the diminishing discharge.

MIDY, Pharmacist, 113 Faubourg Honore, Paris.

Soluble Phosphate of Iron,

OR PYROPHOSPHATE OF IRON AND SODA.

DELERAS, DOCTOR ES-SCIENCES, PARIS.

This colorless preparation, with no taste or flavor of iron, contains 20 centigrammes (3½ grains) of the Pyrophosphate of Iron and Soda to each table spoonful. The intimate union of these essential elements of bone and blood, Iron and Phosphorus in a soluble state, makes the best chalybeate in Chlorosis, Anæmia, Scrofula, Lymphangitis, Convalescence, etc. It does not precipitate in the fluids of the stomach, which ensures rapid assimilation, never producing constipation, owing to the presence of a small quantity of the Sulphate of Soda, produced during its preparation.

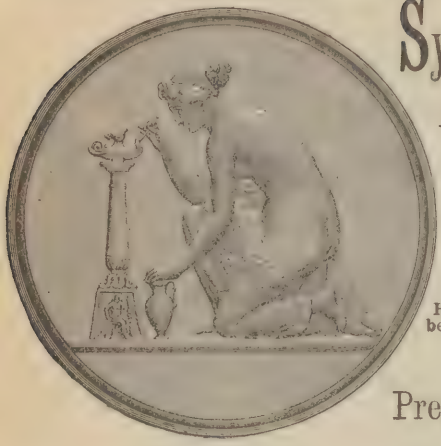
Chapoteaut's Pearls of Pure Pepsine.

Up to the present time, physicians have never been able to use *pure Pepsine*, the best preparations being in effect but a mixture of 20 to 25 per cent. of Pepsine of starch, with 75 per cent. of sugar of milk, or gelatine. The works of *Mr, Chapoteaut*, published by the Academy of Sciences, of Paris, have shown that it can be obtained pure. To ensure its preservation it is enclosed in small round capsules, each containing four (4) grains. One gramme (15 grains) of this Pepsine will digest 35 grammes of beef. The amount contained in each pearl is four times as active as one gramme of lactic or amylaceous Pepsine. Each vial contains 40 pearls.

CHAPOTEAUT, 8 rue Vivienne, Paris.

FOUGERA, 30 North William street, New York.

Depot at ST. CYR FOURCADE'S PHARMACY, 215 Canal, corner Rampart, New Orleans, and for sale by all druggists and chemists in the city.



Syr: Hypophos: Comp: C. P.

(McARTHUR.)

For the treatment of Consumption and Tubercular Diseases.]

"I have frequently prescribed DR. McARTHUR'S SYRUP OF HYPOPHOSPHITES, and have found it to be a therapeutic agent of great value in the treatment of many diseases."
O. G. CILLEY, M. D., Surgeon-General, Mass.

"I now prescribe it habitually in my private practice, and *always with benefit* when the cases are properly selected."
PROF. JOHN S. LYNCH, M. D., Baltimore, Md.

"I must add, that of all the different preparations of Hypophosphites, the best is DR. McARTHUR'S SYRUP, because *it has always answered my expectations.*"
F. H. COPELAND, M. D., Port Physician, Boston.

Prepared by J. A. McARTHUR, M.D.

Sold by Chemists and Druggists in all parts of the world.

L. GRAHAM & SON,

127 Gravier Street,

NEW ORLEANS,

MAKE A SPECIALTY OF

BOOK PRINTING.

DR. DOUGLAS BLY'S



CELEBRATED PATENT



ARTIFICIAL LIMBS

Have all the Motions of the Natural Ones.

Perfect Satisfaction in Fitting or No Pay asked.

A large assortment of Trusses, Abdominal Supporters, Shoulder-Braces, Elastic Stockings, Crutches, &c., at reasonable prices, and the best workmanship. I will attend to the fitting of each instrument, and guarantee satisfaction. A lady will attend to lady customers.

The following Certificate, from a noted Surgeon, is of interest:

NEW ORLEANS, Dec. 14th, 1881.

"I do not hesitate to say that I have been agreeably surprised at the facility and ease with which Mr. J. L. Gubernator uses an Artificial Leg made by Mr. McDermott of this city, and said to be on the Bly Patent. Having amputated Mr. Gubernator's limb, I feel interested and pleased with the result. Respectfully, A. W. SMYTHE, M. D.

☞ Pamphlet and Price List sent free. Address,

A. McDERMOTT, Manufacturer, 153 Camp St., New Orleans.

TAKE Only and Insist on "THE BEST OF AMERICAN MANUFACTURE."

PLANTEN'S CAPSULES*

Known as Reliable nearly 50 Years.

*See note, page 64, Prof. Van Buren & Keyes on Urinary Organs.

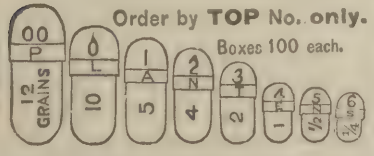
Premium for "General Excellence in Manufacture."

H. PLANTEN & SON, 224 William St., New York.

Hard and Soft Elastic CAPSULES All Kinds Filled,

(9 sizes), 3, 5, 10 and 15 Minims, and 1, 2½, 5, 10 and 15.

EMPTY, 8 sizes.



Order by TOP No. only.

Boxes 100 each.

For taking medicines free of taste, smell, injury to teeth, mouth or throat.

100 BY MAIL, 50 CENTS.

N. B.—We make ALL KINDS of Capsules to order. ☞ New Articles in capsuling, and Private Formulas a specialty.

SAMPLES S T FREE.

RECTAL, 3 Sizes.

3, 6 and 12 grains.

VAGINAL, 4 Sizes.

¼, ½, 1-16 and 1-32 ounce.

HORSE, 5 Sizes.

1, 2, 3, 4 and 8 drams. For giving liquids or solids to Horses and Cattle.

DOG WORM,

5 Minims Oil of Male Fern.

Capsules for Mechanical Purposes

SOLD BY ALL DRUGGISTS.

☞ *SPECIFY PLANTEN'S CAPSULES ON ORDERS.* ☜

I. L. LYONS,

(SUCCESSOR TO BALL, LYONS & CO.)

WHOLESALE

Druggist and Pharmacist,

40 42, 44 CAMP and 111, 113, 115, 117 GRAVIER STS.,

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DEALER IN

Drugs, Chemicals, Essential Oils,

Chemical Apparatus, Surgical Instruments, Electric Apparatus, Medicine Chests, Saddle Bags, Trusses, Supporters, Silk Stockings, Sponges, and all articles used in Medicine and Surgery.

FINE WINES AND LIQUORS,

PERFUMERY, FANCY GOODS, PAINTS, OILS, DYE STUFFS, GLASS, ETC.;

Importer of

FRENCH, ENGLISH AND GERMAN DRUGS AND CHEMICALS.

Importer of Swedish Leeches,
Importer of English Solid Extracts,
Importer of Battley's Liquor Opii Sed.,
Liquor Ergot, Cinchona, Buchu, Taraxacum, etc.,
Importer of French, English and German Proprietary Medicines, Perfumery and Drug Sundries

Only direct Importer in the South of Norwegian or Bergen Cod Liver Oil, White and Brown.

Agent for GEO. TIEMANN & CO.'S SURGICAL INSTRUMENTS,
Which we Sell at Makers' Prices.

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SHARPE & DOHMES' AND HENRY THAYER & CO'S SOLID AND FLUID EXTRACTS

Agent for
JNO. WYETH & BRO'S FLUID EXTRACTS, ELIXIRS, WINES, DIALYSED IRON, COMPRESSED PILLS, &C., &C.

Agent for
R. L. A. BABCOCK'S SILVER UTERINE SUPPORTER.
DR. McINTOSH'S UTERINE SUPPORTER,
DR. STEPHENSON'S UTERINE SUPPORTER

BLUE LICK, POLAND, BETHESDA AND BLADON WATER.

Always in stock a full line of
ARPENTER'S, ELLIOT'S, ALOE & HERNSTEIN'S AND LESLIE'S SADDLE BAGS, FRESH HUMAN AND BOVINE VACCINE

The extensive Dispensing Department and complete Laboratory connected with my Wholesale Business enables me to give that careful attention to Physicians' Orders necessary to ensure filling them satisfactorily.

Having always exercised the greatest care in the selection of the crude materials employed, and making all pharmaceutical preparations of standard strength, in strict accordance with established and recognized formulas, I have earned and am entitled to the confidence of the profession.

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During my many years' experience I have always recognized the importance of establishing in our midst a LABORATORY which would enable Physicians to procure at home, with a guarantee of purity and reliability, the many, elegant and really scientific preparations which have of late years become so popular with practitioners and patients. Supplied with the MOST APPROVED APPARATUS, and in charge of intelligent and experienced pharmaceutists, I may justly claim the products of my laboratory to be excelled by none in the country, and to be far superior to most others of foreign manufacture. I cannot attempt here to enumerate all the extensive list of my preparations, and will only call attention to the leading ones, which have, by their absolute reliability, elicited the praise and approbation of the leading physicians in this city.

I also beg to add that I am prepared to manufacture at short notice any pharmaceutical preparation which physicians may be unable to procure elsewhere.

COD LIVER OIL with PHOSPHATE OF LIME;
COD LIVER OIL with LACTO-PHOSPHATE OF LIME;
COD LIVER OIL with SOLUBLE PHOSPHATE OF LIME;
COD LIVER OIL, FERRATED;
COD LIVER OIL, IODO-FERRATED;
COD LIVER OIL, PHOSPHORATED;
BERGEN COD LIVER OIL, WHITE;
BERGEN COD LIVER OIL, BROWN.

NUTRITIVE ELIXIR, (Beef, Cognac and Bitter Orange) NUTRITIVE ELIXIR, FERRATED, designed as SUBSTITUTES FOR DUCROS' ELIXIR, at more moderate prices.

ELIXIR BISMUTH.
ELIXIR CALISAYA and PYROPHOS. IRON.
ELIXIR CALISAYA, IRON and STRYCHNIA.
ELIXIR CALISAYA, IRON, STRYCHNIA and BISMUTH.
ELIXIR CALISAYA, IRON, PEPSINE and BISMUTH.
ELIXIR CIT. LITHIA.
ELIXIR PHOSPHATE IRON, QUININE and STRYCHNIA.
ELIXIR PYROPHOS. IRON, QUININE and STRYCHINA.
ELIXIR PEPSINE.
ELIXIR PEPSINE and BISMUTH.
ELIXIR PEPSINE, BISMUTH and STYRCHNIA.
ELIXIR PEPSINE, BISMUTH. STRYCHNIA and IRON.
ELIXIR VAL. AMMONIA.
ELIXIR VAL. AMMONIA and QUININE.
ELIXIR GUARANA.
ELIXIR TARAX. COMP. for masking Quinine.

LIQUOR PEPSINE.
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SYRUP PHOSPHATES COMP.
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SYRUP LACTO PHOSPHATE LIME.
SYRUP IRON, free from taste and acid.
SYRUP PHOSPH. IRON, QUININE and STRYCHNIA.
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WINE, BEEF, IRON and CINCHONA.
WINE, PEPSINE.
WINE, IRON BITTER.
WINE CINCHONA, (Quinquina Robiquet.)
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WINE WILD CHERRY.
WINE WILD CHERRY, FERRATED.

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Are under the management of R. N. GIRLING. Special attention is paid to the careful selection of Drugs and Chemicals, and the utmost care is used to insure all preparations of the United States, and other pharmacopias being fully up to the standard as to PURITY AND STRENGTH, so that Physicians may have implicit confidence in all preparations emanating from our Laboratory.

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ERGOTINE, for Hypodermic uses, etc.

ELIXIR OF PEPSINE, } Each containing 15 Grains of Saccharated Pep-
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ALIMENTARY ELIXIR, } Prepared from Beef, Brandy and Ma-
ALIMENTARY ELIXIR, *Ferrated*, } laga Wine.

FERRATED ELIXIR OF CALISAYA BARK.

EMULSION OF COD LIVER OIL & PHOSPHATE OF LIME, (soluble.)

EMULSION OF COD LIVER OIL AND HYPOPHOSPHITES.

Orders from the Country Promptly Executed.

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Jan. '83-1y.

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FORMULA.—Iodia is a combination of Active Principles obtained from the green roots of Stillingia Helonias, Saxifraga, Menispurmum, and Aromatics. Each *fluid* drachm also contains *five* grains IOD. POTAS. and *three* grains PHOS. IRON.

DOSE.—One or two *fluid* drachms (more or less as indicated) *three* times a day before meals.

IODIA is the *Ideal* Alterative. It has been LARGELY PRESCRIBED in syphilitic, scrofulous, cutaneous, and female diseases, and has an established reputation as being the best alterative ever introduced to the Profession.

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COCALAC.

Cocalac is a combination of Coca and the Cereal Lacto-Phosphoids.

DOSE.—*One tablespoonful three times a day, or oftener, as indicated.*

STIMULATION WITHOUT REACTION.

Physicians who use the genuine Coca *in the form of Cocalac*, are agreeably surprised to find that it is quite a different thing from the ordinary commercial Coca, which has generally lost its volative properties, and is besides, usually, adulterated, and, hence, is almost worthless.

COCALAC improves the appetite exhilarates the spirits, and gives tone and vigor to the entire system. Every physician who has used it testifies that it is a pleasant tonic and stimulant removing fatigue and languor. Its effects on the brain is to stimulate that organ to greater activity and to relieve the mind of the depression incident to worry and anxiety.

Physicians and literary workers can exert themselves *beyond the natural enduring power* by using COCALAC. The activity of the mind, when under its influence, is *greatly increased* without the reaction following the use of alcoholic stimulants.

COCALAC is a scientific blending of the genuine Coca with the Lacto-Phosphoidal principle of wheat and oats; it is VERY NUTRITIOUS, *being capable of sustaining life without any other food or drink* it is also the best form for the convalescing, dyspeptic, or nervous patient, *as it is delicious to the taste and* ACCEPTABLE *to the stomach.*

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BEEF PEPTONOIDS

Composed of the Nutritious Constituents of

BEEF, WHEAT AND MILK,

FORMS IN ITSELF A PERFECT FOOD.

1st. **Beef Peptonoids,** as now prepared, is both *pleasant to the taste and smell.*

2d. There is no food preparation that compares with it in nutritive properties.

3d. It is partially prepared for assimilation, and therefore makes but little demand upon the digestive powers of the gastric juice.

4th. Being in the form of a dry powder, it will keep in any climate.

5th. It contains over 90 per cent. of nutritious matter.

6th. It contains twenty-five times more nutritive matter than Liebig's Extract of Beef, or similar productions.

7th. One ounce of **Beef Peptonoids** contains more nourishment than five pints or beef tea prepared from eighty ounces of beef.

8th. Beef tea and similar preparations to Liebig's contain but little else than the osmazone and stimulating properties of the beef, and are therefore almost valueless as constructives.

9th. **Beef Peptonoids** is the only preparation, rich in nitrogenous matter, that is pleasant to the taste.

10th. It has the advantage of being easily and quickly prepared for use.

Dr. Stutzer, Director of the Imperial Agricultural Chemical Laboratory for Rheinish Prussia, Bonn, in a long and interesting article in the *Pharmaceutische Centralhalle* on the nourishing power of various natural and artificial foods for infants and invalids, gives the following results as far as concerns their nitrogenous nutritive constituents:

Beef Peptonoids ..... 70 per cent.

per ct.	per ct.	per ct.
"Caviar 25.81	"Fowl (breast) .. 16.56	"White Bread 7.20
"Revalenta 19.93	"White of Egg .. 13.48	"Biscuit 6.71
"Smoked Ham .. 18.93	"Yolk " .. 13.01	"Oysters 5.78
"Fresh Beef 18.53	"Infants' Food .. 9.90	"Cows' Milk 4.00

"Extractum Carnis (Liebig's Beef) 3.40

"Dr. Stutzer further exposes the often exposed superstition about the nourishing powers of beef tea. He shows that we would have to take half a gallon of beef tea, made with a pound of beef to each pint of water, before we get as much nourishment as is contained in a quarter of a pound of steak."—*New York Medical Times.*

According to Dr. Stutzer's valuation of beef tea, a patient would be obliged to consume eighty pints of that deceptive liquid (prepared from eighty pounds of steak), before he could obtain the flesh-forming constituents present in one pound of **Beef Peptonoids.**

For sale in four ounce packages, price $1 00; also, for convenience and economy, we put up **Beef Peptonoids** in 16 oz. tins, which will be sent to any physician's address, post paid, on receipt of $2 50. Sample mailed on application.

Thanking the profession for generous support in the past, we beg to remain,

Very respectfully,

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MANUFACTURER OF

ELIXIR LACTOPHOSPHATE COMPOUND,

COCA PHOSPHATES

Highly recommended in Nervous Debility and Prostration. During the period of Lactation it will prove valuable.

Axell's Cod Liver Oil imported direct from Christiania Norway.

FRESH COCA LEAVES of the June crop always in stock.

Chloral and Methylated Chloroform.

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Which, on account of their effervescing properties; and careful preparation, are more agreeable to take, and more efficacious than syrups, tinctures, wines, etc.

Special attention is directed to my

PYROPHOSPHATED IRON WATER.

It is tasteless and not offensive to the most delicate stomach, and is peculiarly adapted to the treatment of Chlorosis, Anæmia and conditions of general debility where iron is indicated. It is made of standard uniform strength.

Each SIX fluid ounces contain in solution ONE GRAIN OF METALLIC IRON.

I also manufacture a very reliable **LITHIA PREPARATION.** As a carbonated water, it is one of the most efficacious forms of administering this medicine.

SIX FLUID OUNCES contain THREE GRAINS OF CARBONATE OF LITHIA.

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Put up in Pint Bottles. The Trade supplied.

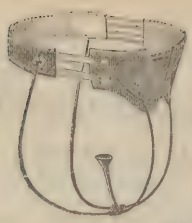
Parties in the Country will please direct their orders either to me, or to any Wholesale Druggist of New Orleans.

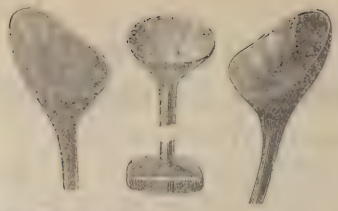
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No instrument has ever been placed before the medical profession which has given such universal satisfaction. The combination is such that the Physician is able to meet every indication of Uterine Displacements. Falling Womb, Anteversion, Retroversion and Flexions are overcome by this instrument, where others fail; this is proven by the fact that since its introduction to the Profession it has come into more general use than all other instruments combined.

Among the many reasons which recommend this Supporter to the Physician is its self-adjusting qualities. The Physician after applying it need have no fear that he will be called in haste to remove or readjust it as is often the case with rings and various pessaries held in position by presure against the vaginal wall, as the patient can remove it at will and replace it without assistance.

The Abdominal Supporter is a broad morroco leather belt with elastic straps to buckle around the hips, with concave front so shaped as to hold up the abdomen. The Uterine Support is a cup and stem made of highly polished hard rubber, very light and durable shaped to fit the neck of the womb, with openings for the secretions to pass out, as shown by the cuts. Cups are made with extended lips to correct flexions and versions of the womb.

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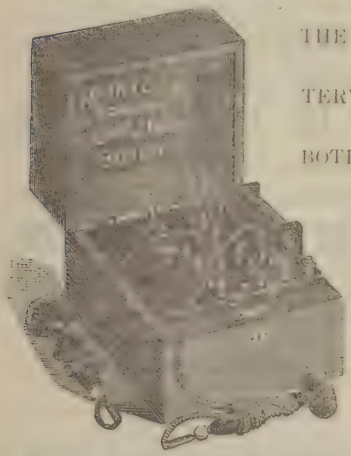
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An extra large cell (with a zinc and carbon element) is added to the combined batteries for the purpose of producing the Faradic Current. This cell gives as much Power as is ever needed, and avoids exhausting the current from the Galvanic cells.

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Prepared from the Stomach of the hog, *Uniform in Strength*, and *free from unpleasant odor and taste.* Ten grains of Saccharated Pepsin, dissolved in one ounce of water, with addition of ten drops of muriatic acid, will completely dissolve 150 grains of coagulated albumen, at a temperature of 100 to 150° F., in 4 to 6 hours.

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SUGAR COATED & GELATINE COATED PILLS,

Comprising all the officinal and other well-known favorite formulæ.

These PILLS are all Prepared with the Utmost Care, under our Immediate Supervision.

The DRUGS entering into their Composition are of the Best Quality.

The Quantities and Proportions are Invariably as Represented on the Labels

The Excipients to make the Masses are Carefully Chosen in each Case, to make the Pill Permanently Soluble in the Fluids of the Stomach and Bowels.

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In Leuchorrhea,

with thick albuminous discharge like the white of an egg, use locally by injection, 1 to 4 drs. to one pint of water, three or four times per day.

In Ghonorrhea,

as an injection; and in Balanites, as a wash use 1 to 2 drs. to water 4 oz.

In Stomatitis,

Pseudo membranous, ulcerative, or gangrenous, when the inflammation is sub-acute, or characterized by profuse secretion of ropy mucous, use as a gargle or wash in proportion of 1 to 2 drs. to water 4 ounces. When the breath is offensive. Pot. Chlorate or Baptisia assists its action.

In Cystitis,

acute or chronic, when the urine is pale or greenish, and viscid from abundance of mucous, use internally 1 to 4 drs. in water 4 ounces. In the severer cases of Chronic Cystitis with phosphatic urine, rinsing out the bladder with tepid water, and following with Fluid Hydrastis 1 to 2 drs. to water 4 ounces; one ounce to be used as an injection into the bladder, is often of great benefit.

In Dyspepsia,

with undue atievity of the mucous glands and deficient action of the gastric follicles, of which the symptoms are a heavy loaded tongue, especially at the base; and in the morning, dull aching pains in the stomach, with sinking sensations, nausea, and occasional vomiting of vitiated mucous, use half to one ounce Fluid Hydrastis to a pint of sherry or native wine. Dessert spoonful, 3 or 4 times a day.

In Intermittents,

especially of the type characterized by disease of the Gastro-intestinal mucous membrane, with nausea, heavily coated tongue, broad and flabby and pale, or coated with yellow, dirty mucous; bowels constipated, or when moved, evacuations clay colored or streaked with mucous, use 1 to 4 drs. with water 4 ounces. Teaspoonful every three or four hours.

In Catarrh of the Intestines

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to prevent decomposition, applied to the surface of cancerous growths and unhealed ulcers and sores; as an injection into the bowels in diarrhœa and dysentery, and to correct the offensive character of many mucous ditsharges.

In Many Chronic Diseases,

in which exists undue activity of the mucous membrane in some portion of the body, the remedy is of marked benefit as a general tonic. The following are some convenient forms for internal use:

℞ Fluid Hydrastis ½ to 1 fluid ounce, sherry wine sufficient to make one pint.

or ℞ Fluid Hydrastis ½ to 1 fluid ounce, syrup sufficient to make one pint.

or ℞ Fluid Hydrastis ½ to 1 fluid ounce, Glycerine 2 fluid ounces, water sufficient to make one pint.
Teaspoonful to a dessert spoonful three or four times per day.

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Has been proved of the highest value in CONSUMPTION and all WASTING DISEASES, invariably producing IMMEDIATE INCREASE IN FLESH AND WEIGHT.

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Each Dose of two teaspoonfuls, equal to 120 drops, contains:

PURE COD LIVER OIL, 80 m. (drops)	SODA..... 1-3 grains.
DISTILLED WATER.... 35 "	BORIC ACID ..... 1-4 "
SOLUBLE PANCREATIN, 5 grains.	HYOCHOLIC ACID ..... 1-20 "

DOSE—Two teaspoonfuls alone, or mixed with twice the quantity of Soft water, to be taken thrice daily with meals.

The principles upon which this discovery is based have been described in a Treatise on "THE DIGESTION AND ASSIMILATION OF FATS IN THE HUMAN BODY." by H. C. BARTLETT, Ph. D., F.C.S., and the experiments which were made, together with cases illustrating the effect of Hydrated Oil in practice, are concisely stated in a Treatise on "CONSUMPTION AND WASTING DISEASES," by G. OVEREND DREWRY, M.D.

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To brain workers of all classes, Hydrated Oil is invaluable, supplying, as it does, the true brain food.

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SACCHARATED PEPSIN,

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In digestive power it corresponds to the standard adopted by the Committee on the 6th Revision of the U. S. Pharmacopœia, which is as follows:

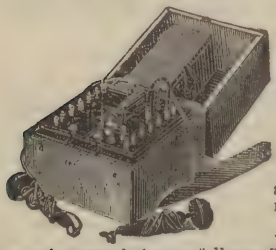
One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

CONCENTRATED DRY PEPSIN,

which possesses eight times the digestive power of the Saccharated; particularly recommended to manufacturers.

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a very active and palatable medicine, containing 4% of Saccharated Pepsin dissolved in acidulated water and glycerine.



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As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

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Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

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I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

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Prepared by E. F. HOUGHTON & Co., 211 S. Front St., Philadelphia

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Liquor Tongae Salicylatus

THE NEW REMEDY FOR NEURALGIA AND RHEUMATISM.

Tonga is a product of the Tonga or Friendly Islands, and has long be enused as a domestic remedy by the natives of the Fiji Group. It was introduced to the notice of the medical profession by Drs. Ringer and Murrell, of London, England, who have made some very thorough and most satisfactory experiments as to its therapeutic value.

TONGALINE is an efficacious and elegant preparation of Tonga, with powerful salicylates, and commends itself to the medical profession.

EACH FLUID DRACHM OF TONGALINE REPRESENTS:

Tonga	30 grains.	Pilocarpin Salicylate	1-100 grain.
Extractum Cimicifugæ Racemosæ	2 grains.	Colchicin Salicylate	1-600 grain.
Sodium Salicylate	10 grains.		

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I have found TONGALINE a useful combination in rheumatic neuralgia.

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I am glad to inform you that the formula for your preparation, TONGALINE, is a very excellent one. Have had occasion to prescribe it in several cases of rheumtaic-neuralgic affections of long standing, which seemingly resisted other remedies, and in some of them the TONGALINE produced most excellent results.

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I have used your preparation, TONGALINE, extensively, and have been well satisfied with its results. You are to be congratulated on the value of article which you offer to physicians.

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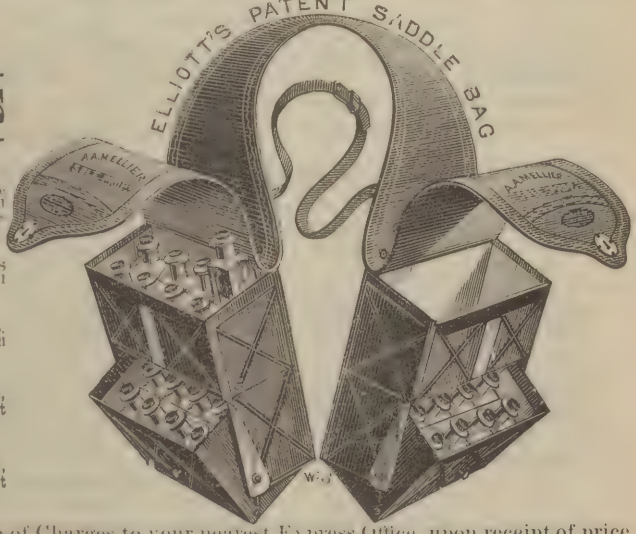
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NO DRAWERS



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The Peptones of Chapoteaut, of Beef, prepared exclusively with pure Pepsine of the Sheep, is prescribed in the following forms:

Chapoteaut's Wine of Peptones;

To be taken at the commencement of each meal; dose: one wineglassful, equal to 10 grammes of Beef.

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This preparation is neutral, liquid and aromatic. Each teaspoonful is equivalent to twice its weight of Beef, and may be taken in broth, preserves or syrup, or in the form of enema. Indicated in Anæmia, Dyspepsia, Debility, Loss of Appetite, Atony of Stomach and Bowels, as a Food for Nurses, Infants, and the aged, and of Phthisical and Diabetic subjects.

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Syrup of Iodized Horse Radish.

PREPARED WITHOUT HEAT BY GRIMAULT & CO.

It is a good combination of Iodine with the juices of the antiscorbutic plants, Water Cresses, Horse Radish, Cochlearia and Water Trefoil. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures of iodide of potassium and iron, and is a very useful medicine for children in the lymphatic cachexia and phthisis. The syrup of iodized horse radish is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each tablespoonful represents 5½ centigrams of iodine. The daily dose for children is 1 tablespoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. Grimault & Co., Chemists, depot No. 8 Vivienne street, Paris. For sale in all drug stores.

Pelletier's Capsules of Sulphate of Quinine,

PREPARED BY MESSRS. ARMET DE LISLE & CIE.,

Successors of Pelletier, Delondre & Levaillant, with their Renowned

"QUININE DES TROIS CACHETS,"

These Capsules are very thin, transparent, and disolve easily in the stomach; they contain each 10 centigrams (over 1½ grain English) of the pure Sulphate of Quinine in silky crystals, and are capable indefinite preservation.

Sold in bottles of ten or twenty Capsules.

By RIGAND & DUSARL, Chemists, 8 rue Vivienne, Paris.

Grimault & Co. Quinquina Ferruginous Wine.

The preparations of Iron are not always well borne by the stomach. In order to obviate any intolerance, it becomes necessary to combine them with Quinquina, but such a combination can only be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA FERRUGINEAUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty ysars.

The Vin de Quinquina Ferrugineaux de Grimault et Cie., must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and dessert spoonful for children.

Depot à Paris—8 rue Vivienne.

DUSART'S SYRUP AND WINE

—OF—

Lacto-Phosphate of Lime,

AN ALIMENT AS WELL AS A MEDICAMENT,

The properties of which are scientifically founded on physiological experiments, has now received the sanction of several years' successful trial by the medical profession as producing durable reconstituent effects IN ALL CASES OF CACHEXIA OR ADYNAMIA, when nutrition has been impaired by acute or chronic complaints.

LACTO-PHOSPHATE of LIME is PHOSPHATE OF LIME—the natural restorer of the muscular fibre as well as bones—made assimilable by the action of its natural solvent, lactic acid.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament especially invaluable for the above cases when complicated with anæmia.

DOSES—For Adults, 3 to 6 table spoonfuls a day; for Children, 3 to 6 dessert spoonfuls a day.

DUSART, Pharmacist, 8 rue Vivienne, Paris.

MIDY'S SANTAL.

The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs.

It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas. The urine does not take any odor. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrh.

The Santal of Midy is prepared in small round, transparent capsules, it is chemically, pure, and obtained by or from the distillation of Citrine Santal of Bombay.

DOSE From 10 to 12 Capsules per day; decreasing progressively in proportion with the diminishing discharge.

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Soluble Phosphate of Iron,

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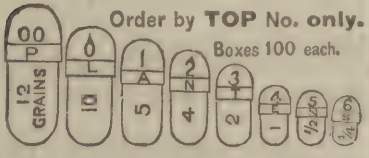
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It is tasteless and not offensive to the most delicate stomach, and is peculiarly adapted to the treatment of Chlorosis, Anæmia and conditions of general debility where iron is indicated. It is made of standard uniform strength.

Each SIX fluid ounces contain in solution ONE GRAIN OF METALLIC IRON.

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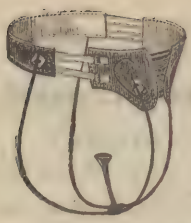
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Maltine will convert 33 times its weight of starch at 140 Fahr. in 16 minutes.

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Prof. ALBERT B. PRESCOTT, M.D., F. C.S., Univ. Michigan, Jan. 7, 1884—"'Maltine' converts 33 times its weight of starch. Trommer's Extract converts 16 times its weight of starch."

Prof. R. DORSEY COALE, Lecturer on Chemistry and Toxicology, Univ. of Maryland, Baltimore, Md., Feb. 7, 1884—"I obtained in the open market, from four different wholesale dealers in this city, samples of 'Maltine' and 'Trommer's Extract of Malt,' and have subjected them to chemical analysis, to determine the relative diastatic value of these preparations. From result submitted, it will be seen that 'Maltine' is far superior in converting power. A given weight of Maltine formed into sugar 1.819 gramme, while the same weight of Trommer's Extract Malt, under exactly same conditions, formed .898 gramme.

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In Leuchorrhea,

with thick albuminous discharge like the white of an egg, use locally by injection, 1 to 4 drs. to one pint of water, three or four times per day.

In Ghonorrhea,

as an injection; and in Balanites, as a wash use 1 to 2 drs. to water 4 oz.

In Stomatitis,

Pseudo membranous, ulcerative, or gangrenous, when the inflammation is sub acute, or characterized by profuse secretion of ropy mucous, use as a gargle or wash in proportion of 1 to 2 drs. to water 4 ounces. When the breath is offensive. Pot. Chlorate or Baptisia assists its action;

In Cystitis,

acute or chronic, when the urine is pale or greenish, and viscid from abundance of mucous, use internally 1 to 4 drs. in water 4 ounces. In the severer cases of Chronic Cystitis with phosphatic urine, rinsing out the bladder with tepid water, and following with Fluid Hydrastis 1 to 2 drs. to water 4 ounces; one ounce to be used as an injection into the bladder, is often of great benefit.

In Dyspepsia,

with undue activity of the mucous glands and deficient action of the gastric follicles, of which the symptoms are a heavy loaded tongue, especially at the base; and in the morning, dull aching pains in the stomach, with sinking sensations, nausea, and occasional vomiting of vitiated mucous, use half to one ounce Fluid Hydrastis to a pint of sherry or native wine. Dessert spoonful, 3 or 4 times a day.

In Intermittents,

especially of the type characterized by disease of the Gastro-intestinal mucous membrane, with nausea, heavily coated tongue, broad and flabby and pale, or coated with yellow, dirty mucous; bowels constipated, or when moved, evacuations clay colored or streaked with mucous, use 1 to 4 drs. with water 4 ounces. Teaspoonful every three or four hours,

In Catarrh of the Intestines

and superficial ulceration of same; Fistula-in-Ano, and hemorrhage from the rectum. Internally and locally by injection, 1 to 4 drs. to water 4 ounces.

As a Local Application,

to prevent decomposition, applied to the surface of cancerous growths and unhealed ulcers and sores; as an injection into the bowels in diarrhœa and dysentery, and to correct the offensive character of many mucous ditsharges.

In Many Chronic Diseases,

in which exists undue activity of the mucous membrane in some portion of the body, the remedy is of marked benefit as a general tonic. The following are some convenient forms for internal use:

℞ Fluid Hydrastis ½ to 1 fluid ounce, sherry wine sufficient to make one pint.

or ℞ Fluid Hydrastis ½ to 1 fluid ounce, syrup sufficient to make one pint.

or ℞ Fluid Hydrastis ½ to 1 fluid ounce, Glycerine 2 fluid ounces, water sufficient to make one pint.
Teaspoonful to a dessert spoonful three or four times per day.

For sale by Wholesale Druggists throughout the United States.

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The COLLEGIATE YEAR embraces the Regular Winter Session and a Spring Session.

The REGULAR SESSION begin, on Wednesday, September 17, 1884, and ends about the middle of March, 1885. During this Session, in addition to the regular didactic lectures, two or three hours are daily allotted to clinical instruction. Attendance upon two regular courses of lectures is required for graduation.

The SPRING SESSION consists chiefly of recitations from Text-books. This Session begins about the middle of March and continues until the middle of June. During this Session, daily recitations in all the departments are held by a corps of Examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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Each Dose of two teaspoonfuls, equal to 120 drops, contains:

PURE COD LIVER OIL, 80 m. (drops)	SODA ..... 1-3 grains.
DISTILLED WATER.... 35 "	BORIC ACID ..... 1-4 "
SOLUBLE PANCREATIN, 5 grains.	HYOCHOLIC ACID ..... 1-20 "

DOSE—Two teaspoonfuls alone, or mixed with twice the quantity of Soft water, to be taken thrice daily with meals.

The principles upon which this discovery is based have been described in a Treatise on "THE DIGESTION AND ASSIMILATION OF FATS IN THE HUMAN BODY." by H. C. BARTLETT, Ph. D., F.C.S., and the experiments which were made, together with cases illustrating the effect of Hydrated Oil in practice, are concisely stated in a Treatise on "CONSUMPTION AND WASTING DISEASES," by G. OVEREND DREWRY, M. D.

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HYDROLEINE is readily tolerated by the most delicate stomachs, even when the pure Oil or the most carefully prepared Emulsions are rejected. The Oil is so treated with pancreatin soda, boric and hyocholic acids, that the process of digestion is partially effected before the organs of the patient are called upon to act upon it. Consequently it is readily assimilated. It will nourish and produce increase in weight in those cases where oils or fats, not so treated, are impossible to digest. In CONSUMPTION and other WASTING DISEASES, the most prominent symptom is *emaciation*, of which the first is the starvation of the fatty tissues of the body, including the brain and nerves. This tendency to emaciation and loss of weight is arrested by the regular use of HYDROLEINE, which may be discontinued when the usual average weight has been permanently regained.

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To brain workers of all classes, Hydrated Oil is invaluable, supplying, as it does, the true brain food.

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which has proven its superiority over other Pepsins by its stability and uniformity, and by its agreeable taste.

In digestive power it corresponds to the standard adopted by the Committee on the 6th Revision of the U. S. Pharmacopœia, which is as follows:

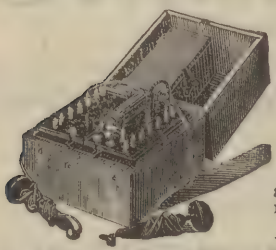
One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F

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Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

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Liquor Tongae Salicylatus

THE NEW REMEDY FOR NEURALGIA AND RHEUMATISM.

Tonga is a product of the Tonga or Friendly Islands, and has long be enused as a domestic remedy by the natives of the Fiji Group. It was introduced to the notice of the medical profession by Drs. Ringer and Murrell, of London, England, who have made some very thorough and most satisfactory experiments as to its therapeutic value.

TONGALINE is an efficacious and elegant preparation of Tonga, with powerful salicylates, and commends itself to the medical profession.

EACH FLUID DRACHM OF TONGALINE REPRESENTS:

Tonga	30 grains.	Pilocarpin Salicylate	1-100 grain.
Extractum Cimicifugæ Racemosæ	2 grains.	Colchicin Salicylate	1-500 grain.
Sodium Salicylate	10 grains.		

ST. LOUIS, July 20th, 1883.

I have found TONGALINE a useful combination in rheumatic neuralgia.

C. H. HUGHES, M. D.

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I have tried TONGALINE in two cases of irregularly recurrent facial neuralgia, and with excellent results; it controls the immediate attack in a few hours, two or three at the outside, and often giving almost immediate relief.

I. W. OWEN, M. D.

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I am glad to inform you that the formula for your preparation, TONGALINE, is a very excellent one. Have had occasion to prescribe it in several cases of rheumtaic-neuralgic affections of long standing, which seemingly resisted other remedies, and in some of them the TONGALINE produced most excellent results.

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I have used your preparation, TONGALINE, extensively, and have been well satisfied with its results. You are to be congratulated on the value of article which you offer to physicians.

REUBEN A. VANCE, M. D

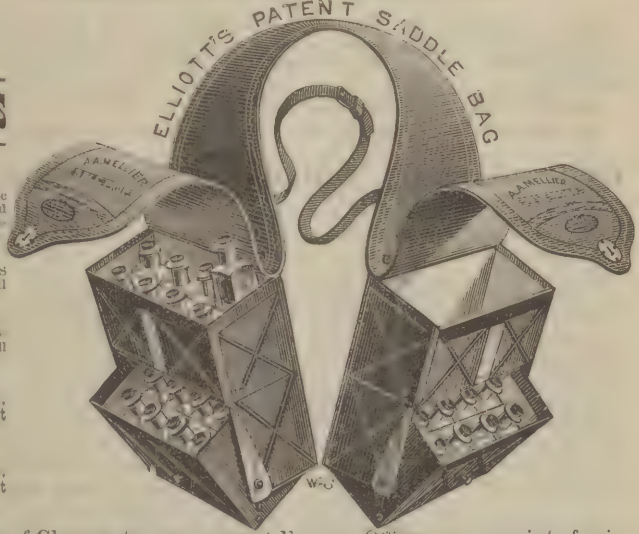
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I have used TONGALINE during the past few weeks in neuralgic affections, many of them in a severe form, with the most gratifying results, and these results have been quite uniform.

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IT HAS

NO DRAWERS



It is made of one piece. Nickel-plated finishing No seams or stitches.

More ELLIOTT'S patent are sold than all others combined.

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Large Size, 30 Vials, Black or Light Leather, $12.00.

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Delivered free of Charges to your nearest Express Office, upon receipt of price.

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The Peptones of Chapoteaut, of Beef, prepared exclusiveiy with pure Pepsine of the Sheep, is prescribed in the following forms:

Chapoteaut's Wine of Peptones;

To be taken at the commencement of each meal; dose: one wineglassful, equal to 10 grammes of Beef.

Chapoteaut's Conserve of Peptones.

This preparation is neutral, liquid and aromatic. Each teaspoonful is equivalent to twice its weight of Beef, and may be taken in broth, preserves or syrup, or in the form of enema. Indicated in Anæmia, Dyspepsia, Debility, Loss of Appetite, Atony of Stomach and Bowels, as a Food for Nurses, Infants, and the aged, and of Phthisical and Diabetic subjects.

CHAPOTEAUT, Pharmacist, 8 rue Vivienne, Paris.

Syrup of Iodized Horse Radish.

PREPARED WITHOUT HEAT BY GRIMAULT & CO.

It is a good combination of Iodine with the juices of the antiscorbutic plants, WATER CRESSES, HORSE RADISH, COCHLEARIA and WATER TREFOIL. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures of iodide of potassium and iron, and is a very useful medicine for children in the lymphatic cachexia and phthisis. The syrup of iodized horse radish is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each tablespoonful represents 5½ centigrams of iodine. The daily dose for children is 1 tablespoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. GRIMAULT & Co., Chemists, depot No. 8 Vivienne street, Paris. For sale in all drug stores.

Pelletier's Capsules of Sulphate of Quinine,

PREPARED BY MESSRS. ARMET DE LISLE & CIE.,

Successors of PELLETIER, DELONDRE & LEVAILLANT, with their Renowned

"QUININE DES TROIS CACHETS,"

These Capsules are very thin, transparent, and disolve easily in the stomach; they contain each 10 centigrams (over 1½ grain English) of the pure Sulphate of Quinine in silky crystals, and are capable indefinite preservation.

Sold in bottles of ten or twenty Capsules.

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The preparations of Iron are not always well borne by the stomach. In order to obviate any intolerance, it becomes necessary to combine them with Quinquina, but such a combination can ouly be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA FERRUGINEAUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty ysars.

The VIN DE QUINQUINA FERRUGINEAUX DE GRIMAULT ET CIE., must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and dessert spoonful for children.

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Lacto-Phosphate of Lime,

AN ALIMENT AS WELL AS A MEDICAMENT,

The properties of which are scientifically founded on physiological experiments, has now received the sanction of several years' successful trial by the medical profession as producing durable reconstituent effects IN ALL CASES OF CACHEXIA OR ADYNAMIA, when nutrition has been impaired by acute or chronic complaints.

LACTO-PHOSPHATE of LIME is PHOSPHATE OF LIME—the natural restorer of the muscular fibre as well as bones—made assimilable by the action of its natural solvent, lactic acid.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament especially invaluable for the above cases when complicated with anæmia.

DOSES—For Adults, 3 to 6 table spoonfuls a day; for Children, 3 to 6 dessert spoonfuls a day.

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MIDY'S SANTAL.

The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs.

It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas. The urine does not take any odor. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrh.

The Santal of Midy is prepared in small round, transparent capsules, it is chemically, pure, and obtained by or from the distillation of Citrine Santal of Bombay.

DOSE From 10 to 12 Capsules per day; decreasing progressively in proportion with the diminishing discharge.

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Soluble Phosphate of Iron,

OR PYROPHOSPHATE OF IRON AND SODA.

DELERAS, DOCTOR ES-SCIENCES, PARIS.

This colorless preparation, with no taste or flavor of iron, contains 20 centigrammes (3½ grains) of the Pyrophosphate of Iron and Soda to each table spoonful. The intimate union of these essential elements of bone and blood, Iron and Phosphorus in a soluble state, makes the best chalybeate in Chlorosis, Anæmia, Scrofula, Lymphangitis, Convalescence, etc. It does not precipitate in the fluids of the stomach, which ensures rapid assimilation, never producing constipation, owing to the presence of a small quantity of the Sulphate of Soda, produced during its preparation.

Chapoteaut's Pearls of Pure Pepsine.

Up to the present time, physicians have never been able to use *pure Pepsine*, the best preparations being in effect but a mixture of 20 to 25 per cent. of Pepsine of starch, with 75 per cent. of sugar of milk, or gelatine. The works of *Mr, Chapoteaut*, published by the Academy of Sciences, of Paris, have shown that it can be obtained pure. To ensure its preservation it is enclosed in small round capsules, each containing four (4) grains. One gramme (15 grains) of this Pepsine will digest 35 grammes of beef. The amount contained in each pearl is four times as active as one gramme of lactic or amylaceous Pepsine. Each vial contains 40 pearls.

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For the treatment of Consumption and Tubercular Diseases.

"I have frequently prescribed Dr. McArthur's Syrup of Hypophosphites, and have found it to be a therapeutic agent of great value in the treatment of many diseases."
O. G. Cilley, M.D., Surgeon-General, Mass.

"I now prescribe it habitually in my private practice, and *always with benefit* when the cases are properly selected."
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"What I am anxious for is, that these Hypophosphites should be brought as speedily as possible into universal use, as I know they will prove not only as sure a remedy in consumption as quinine in intermittent fever, but also as effectual a preventive as vaccination in small-pox."
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CAUTION.—It is important that not less than a bottle of Syrup be ordered at a time, and that physicians should satisfy themselves of its genuineness, to prevent the substitution of impure hypophosphites.

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HORLICK'S FOOD

FOR INFANTS AND INVALIDS



FREE FROM STARCH,
SOLUBLE IN MILK OR WATER,
READY FOR USE, — NO COOKING,
PRICE 40 AND 75 CENTS,
ALL DRUGGISTS.

THE BEST DIET
FOR NURSING MOTHERS,
DYSPEPTICS, CONSUMPTIVES, ETC.
NUTRITIOUS AND AGREEABLE,
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HORLICK'S DRY EXTRACT OF MALT—BEST IN USE.

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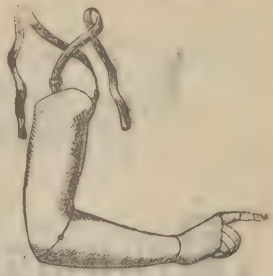
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PLANTEN'S CAPSULES*

Known as Reliable nearly 50 Years.

*See note, page 64, Prof. Van Buren & Keyes on Urinary Organs.

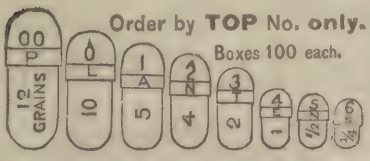
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For taking medicines free of taste, smell, injury to teeth, mouth or throat.

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SAMPLES S T FREE.

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DOG WORM.

5 Minims Oil of Male Fern.

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AS AN INTERNAL REMEDY IN ALBUMINURIA, DIARRHŒA, DYSENTERY, NIGHT-SWEATS, HEMORRHAGES, OR PROFUSE EXPECTORATION, mix one part of the extract with five of warm water; let it cool and take a teaspoonful of the solution every three hours or oftener, as the case may require.

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4th. Being in the form of a dry powder, it will keep in any climate.

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The superior amylolytic power of our Malt Extract has been proved not only by long clinical experience in hospital and private practice, but by careful and repeated analysis by some of the leading organic chemists of both Europe and America, whose reports thoroughly authenticated we are prepared to furnish on application. The mere physical properties of inferior preparation being liable to mislead, we have through our representatives, by means of honestly made and classically accurate tests, demonstrated the diastasic strength of our Extract, in the presence of thousands of physicians, pharmacists, and apothecaries, both in private and at meetings of medical and pharmaceutical societies in every part of the United States.

The Trommer Company were the first to undertake the manufacture of Malt Extract in America, and the first in any country to employ improved processes in its preparation, with the object of preserving unimpaired ALL the soluble constituents of carefully malted barley of the best quality, including especially the important nitrogenous bodies which possess the power to digest starchy food.

We guarantee the uniform strength and purity of our Malt Extract. We are engaged exclusively in this manufacture, and produce one quality only, and challenge any statement to the contrary by whomsoever made. We are able to furnish thoroughly convincing proof of its excellence, in the form of testimonials of physicians and chemists of high repute in America and Europe, many of whom in deference to a growing sentiment in the profession are averse to having their names appear in advertisements. We take pleasure, however, in submitting them in another manner to those who request it, free of expense. It is more than suspected that another class of testimonials which laud to the skies the wares of certain manufacturers, while denouncing an article of long-established merit, have been in some instances too easily obtained. Suspicion is further aroused by the tergiversations and inconsistencies characterizing certain eager contributions which on occasion have found space in medical journals, exhausting the vocabulary of good words in one issue, while in another the same preparation is pronounced to be an inferior product of a house engaged in fraudulent practices. The readers of such contributions would probably be edified if made acquainted with some facts having possible relation to their contradictory character.

For the general convenience we publish an approved method for the

ESTIMATION OF DIASTASE.

For carefully making this, have 12 clear and uniform 2-oz. vials filled with distilled water, and two drops of Iodine Solution prepared from 2 grams Iodine, 4 grams Iodide of Potassium, and 250 grams water, a good thermometer, and starch mucilage. To prepare the mucilage, 10 grams starch are stirred with 30 grams water and poured into 125 or 150 grams boiling water. The thermometer is then introduced and the temperature allowed to cool to 100 F., and maintained so by the water-bath. Ten grams extract of malt dissolved in 10cc. water are then stirred into the mucilage, the time being accurately noted. After one minute a good extract will have converted the thick mucilage into a thin liquid. As soon as this change has taken place, it is necessary to examine the progress of starch into soluble starch, dextrin, and sugar, at the end of every minute, by the following method:

After the expiration of the first minute transfer two drops, by means of a glass rod, into one of the 2-oz. bottles. The bottle is shaken and placed near a window. At the end of every minute repeat this manipulation with a new bottle until the coloration is no longer produced. The time necessary for effecting this change gives the indication as to the amount of diastase present. Undecomposed starch mucilage gives a greenish-blue color, and after standing some time a blue precipitate. Soluble starch, the first product of the change, yields, with Iodine, a dark-blue solution without a precipitate. If the amount of soluble starch equals that of dextrin and sugar, the color of the solution will be purple. As the soluble starch disappears, the solution will be of a decided red color if dextrin predominates, or faintly red if the sugar be in excess; and, when starch and most of the dextrin have been converted into sugar, the liquid will be nearly or entirely colorless. This experiment is very interesting, and is simple to perform.

For convenient methods for the estimation of solid matter and water, dextrin, sugar, etc., and determination of albuminates and free acid, refer to "American Journal of Pharmacy," Vol. 55, No. 6.

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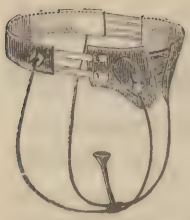
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with undue atievity of the mucous glands and deficient action of the gastric follicles, of which the symptoms are a heavy loaded tongue, especially at the base; and in the morning, dull aching pains in the stomach, with sinking sensations, nausea, and occasional vomiting of vitiated mucous, use half to one ounce Fluid Hydrastis to a pint of sherry or native wine. Dessert spoonful, 3 or 4 times a day.

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especially of the type characterized by disease of the Gastro-intestinal mucous membrane, with nausea, heavily coated tongue, broad and flabby and pale, or coated with yellow, dirty mucous; bowels constipated, or when moved, evacuations clay colored or streaked with mucous, use 1 to 4 drs. with water 4 ounces. Teaspoonful every three or four hours.

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The SPRING SESSION consists chiefly of recitations from Text-books. This Session begins about the middle of March and continues until the middle of June. During this Session, daily recitations in all the departments are held by a corps of Examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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BROMIDIA is *the* Hypnotic *par excellence*. It produces refreshing sleep, and is *exceedingly* valuable in sleeplessness, nervousness, neuralgia, headache, convulsions, colic, etc., and will relieve when *opiates fail*. *Unlike* preparations of opium *it does not lock up the secretions*. In the restlessness and delirium of Fevers *it is absolutely invaluable*.

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Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

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I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

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It is taken internally and intended to reach the cause of the complaint, not merely to allay the symptoms. Contains no opium in any form whatsoever. Is attended with no injurious nor unpleasant reactionary effects.

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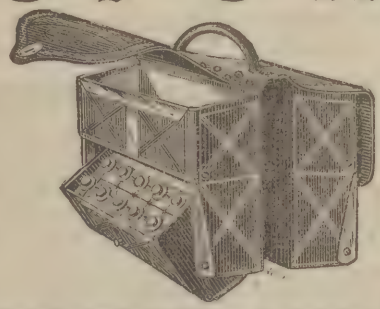
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Contains ten ¾ oz., twenty 1½ oz. vials.
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Contains eight ¾ oz., sixteen 1½ oz. vials.
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This preparation is neutral, liquid and aromatic. Each teaspoonful is equivalent to twice its weight of Beef, and may be taken in broth, preserves or syrup, or in the form of enema. Indicated in Anæmia, Dyspepsia, Debility, Loss of Appetite, Atony of Stomach and Bowels, as a Food for Nurses, Infants, and the aged, and of Phthisical and Diabetic subjects.

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Lacto-Phosphate of Lime,

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As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

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This colorless preparation, with no taste or flavor of iron, contains 20 centigrammes (3⅛ grains) of the Pyrophosphate of Iron and Soda to each table spoonful. The intimate union of these essential elements of bone and blood, Iron and Phosphorus in a soluble state, makes the best chalybeate in Chlorosis, Anæmia, Scrofula, Lymphangitis, Convalescence, etc. It does not precipitate in the fluids of the stomach, which ensures rapid assimilation, never producing constipation, owing to the presence of a small quantity of the Sulphate of Soda, produced during its preparation.

Chapoteaut's Pearls of Pure Pepsine.

Up to the present time, physicians have never been able to use *pure Pepsine*, the best preparations being in effect but a mixture of 20 to 25 per cent. of Pepsine of starch, with 75 per cent. of sugar of milk, or gelatine. The works of *Mr, Chapoteaut*, published by the Academy of Sciences, of Paris, have shown that it can be obtained pure. To ensure its preservation it is enclosed in small round capsules, each containing four (4) grains. One gramme (15 grains) of this Pepsine will digest 35 grammes of beef. The amount contained in each pearl is four times as active as one gramme of lactic or amylaceous Pepsine. Each vial contains 40 pearls.

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For the treatment of Consumption and Tubercular Diseases.

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Known as Reliable nearly 50 Years.

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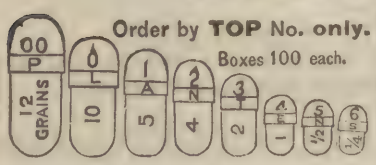
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PHYSICIAN TO THE MANCHESTER INFIRMARY, ETC.

Since the introduction by us of the manufacture of malt extract in this country, many preparations of this class, possessing more or less merit, have been placed on the market; and some, at least, the device of adventurers on the alert for catchword medicinal novelties, being mostly inert malted grain syrups. Hence it has been our endeavor to have the quality of malt preparations determined by appropriate tests which may be conveniently applied by every one interested in the administration of pure and reliable medicines. **Every package of this Extract is accompanied with directions for making such tests, and the trade everywhere have been long and repeatedly notified of our readiness to return the price in money or replace with fresh amylolytically active extract, any and every sample of our extract found to be deficient.**

The superior amylolytic power of our Malt Extract has been proved not only by long clinical experience in hospital and private practice, but by careful and repeated analysis by some of the leading organic chemists of both Europe and America, whose reports thoroughly authenticated we are prepared to furnish on application. The mere physical properties of inferior preparation being liable to mislead, we have through our representatives, by means of honestly made and classically accurate tests, demonstrated the diastasic strength of our Extract, in the presence of thousands of physicians, pharmacists, and apothecaries, both in private and at meetings of medical and pharmaceutical societies in every part of the United States.

The Trommer Company were the first to undertake the manufacture of Malt Extract in America, and the first in any country to employ improved processes in its preparation, with the object of preserving unimpaired ALL the soluble constituents of carefully malted barley of the best quality, including especially the important nitrogenous bodies which possess the power to digest starchy food.

We guarantee the uniform strength and purity of our Malt Extract. We are engaged exclusively in this manufacture, and produce one quality only, and challenge any statement to the contrary by whomsoever made. We are able to furnish thoroughly convincing proof of its excellence, in the form of testimonials of physicians and chemists of high repute in America and Europe, many of whom in deference to a growing sentiment in the profession are averse to having their names appear in advertisements. We take pleasure, however, in submitting them in another manner to those who request it, free of expense. It is more than suspected that another class of testimonials which laud to the skies the wares of certain manufacturers, while denouncing an article of long-established merit, have been in some instances too easily obtained. Suspicion is further aroused by the tergiversations and inconsistencies characterizing certain eager contributions which on occasion have found space in medical journals, exhausting the vocabulary of good words in one issue, while in another the same preparation is pronounced to be an inferior product of a house engaged in fraudulent practices. The readers of such contributions would probably be edified if made acquainted with some facts having possible relation to their contradictory character.

For the general convenience we publish an approved method for the

ESTIMATION OF DIASTASE.

For carefully making this, have 12 clear and uniform 2-oz. vials filled with distilled water, and two drops of Iodine Solution prepared from 2 grams Iodine, 4 grams Iodide of Potassium, and 250 grams water, a good thermometer, and starch mucilage. To prepare the mucilage, 10 grams starch are stirred with 30 grams water and poured into 125 or 150 grams boiling water. The thermometer is then introduced and the temperature allowed to cool to 100° F., and maintained so by the water-bath. Ten grams extract of malt dissolved in 10cc. water are then stirred into the mucilage, the time being accurately noted. After one minute a good extract will have converted the thick mucilage into a thin liquid. As soon as this change has taken place, it is necessary to examine the progress of starch into soluble starch, dextrin, and sugar, at the end of every minute, by the following method:

After the expiration of the first minute transfer two drops, by means of a glass rod, into one of the 2-oz. bottles. The bottle is shaken and placed near a window. At the end of every minute repeat this manipulation with a new bottle until the coloration is no longer produced. The time necessary for effecting this change gives the indication as to the amount of diastase present. Undecomposed starch mucilage gives a greenish-blue color, and after standing some time a blue precipitate. Soluble starch, the first product of the change, yields, with Iodine, a dark-blue solution without a precipitate. If the amount of soluble starch equals that of dextrin and sugar, the color of the solution will be purple. As the soluble starch disappears, the solution will be of a decided red color if dextrin predominates, or faintly red if the sugar be in excess; and, when starch and most of the dextrin have been converted into sugar, the liquid will be nearly or entirely colorless. This experiment is very interesting, and is simple to perform.

For convenient methods for the estimation of solid matter and water, dextrin, sugar, etc., and determination of albuminates and free acid, refer to "American Journal of Pharmacy," Vol. 55, No. 6.

TROMMER EXTRACT OF MALT CO.

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Composed of the Nutritious Constituents of

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2d. There is no food preparation that compares with it in nutritive properties.

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4th. Being in the form of a dry powder, it will keep in any climate.

5th. It contains over 90 per cent. of nutritious matter.

6th. It contains twenty-five times more nutritive matter than Liebig's Extract of Beef, or similar productions.

7th. One ounce of **Beef Peptonoids** contains more nourishment than five pints or beef tea prepared from eighty ounces of beef.

8th. Beef tea and similar preparations to Liebig's contain but little else than the osmazone and stimulating properties of the beef, and are therefore almost valueless as constructives.

9th. **Beef Peptonoids** is the only preparation, rich in nitrogenous matter, that is pleasant to the taste.

10th. It has the advantage of being easily and quickly prepared for use.

Dr. Stutzer, Director of the Imperial Agricultural Chemical Laboratory for Rheinish Prussia, Bonn, in a long and interesting article in the *Pharmaceutische Centralhalle* on the nourishing power of various natural and artificial foods for infants and invalids, gives the following results as far as concerns their nitrogenous nutritive constituents:

Beef Peptonoids ..... 70 per cent.

	per ct.		per ct.		per ct.
"Caviar	25.81	"Fowl (breast)	16.56	"White Bread	7.20
"Revalenta	19.93	"White of Egg	13.48	"Biscuit	6.71
"Smoked Ham	18.93	"Yolk "	13.01	"Oysters	5.78
"Fresh Beef	18.53	"Infants' Food	9.90	"Cows' Milk	4.00

"Extractum Carnis (Liebig's Beef) 3.40

"Dr. Stutzer further exposes the often exposed superstition about the nourishing powers of beef tea. He shows that we would have to take half a gallon of beef tea, made with a pound of beef to each pint of water, before we get as much nourishment as is contained in a quarter of a pound of steak."—*New York Medical Times.*

According to Dr. Stutzer's valuation of beef tea, a patient would be obliged to consume eighty pints of that deceptive liquid (prepared from eighty pounds of steak), before he could obtain the flesh-forming constituents present in one pound of **Beef Peptonoids**.

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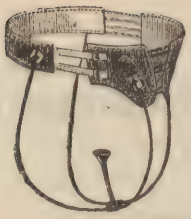
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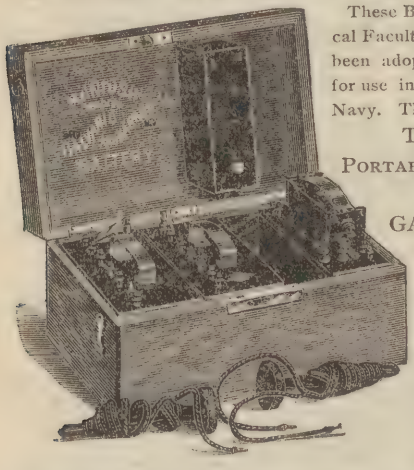
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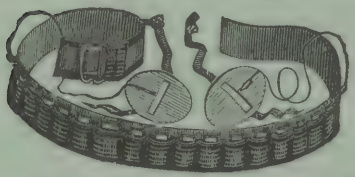
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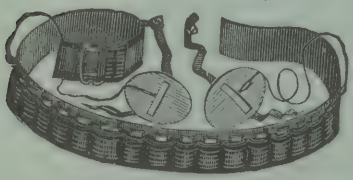
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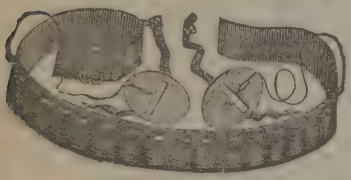
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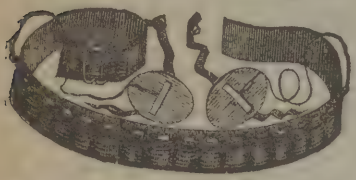
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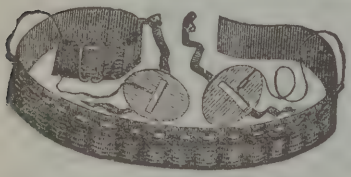
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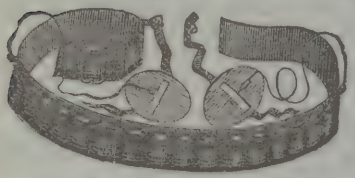
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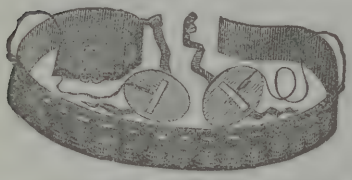
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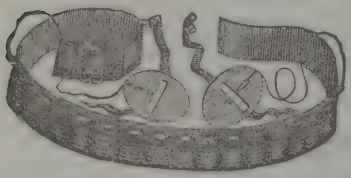
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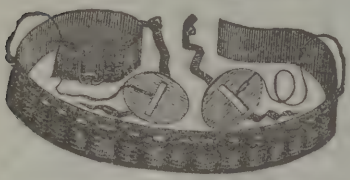
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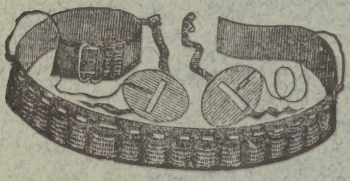
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